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Question 44: The FY 2015 Budget proposal includes funding for implementing EPA's various chemical and pesticide safety programs under a broad category called "Ensuring the Safety of Chemicals and Preventing Pollution Prevention." The Agency proposes an increase of $42.5 million for that category for FY 2015, with $40.3 million of that increase targeted at chemical safety programs. I'd like to have a better understanding of what that $40 million increase will be used for.

a: Under the FY 14 budget, the Agency's TSCA program was budgeted at $62.7 million, split between $48 million for existing chemicals management and $14 million for new chemicals. So the FY 15 budget suggests no increase for management of the Toxic Substances Control Act over FY 2014. Is that correct?

Answer a: No. The FY 2015 President's Budget proposes $62.7 million for the Chemical Risk Review and Reduction (CRRR) Program, under which the majority of TSCA implementation work is funded. This is an increase of $4.1 million over the FY 2014 Enacted Operating Plan levels of $58.6 million. The $62.7 million request is split between $17.1 million for New Chemicals and $45.6 million for Existing Chemicals.

b: Since the $40 million increase is not going to TSCA implementation, what will the funding increase support?

Answer b: The proposed $42.5 million increase is for the entirety of Goal 4, "Ensuring the Safety of Chemicals and Preventing Prevention," which encompasses many programs across the Agency, including chemical and pesticide safety, children's health, research and development, and homeland security. Within the $42.5 million, $4.1 million is for the Chemical Risk Review and Reduction Program, details for which are provided in the response to the prior question.

c: The FY 14 Budget justification indicated that implementation of <u>all</u> of the Agency's existing TSCA authorities were a priority objective. Do you agree that TSCA implementation continues to be a priority for EPA?

Answer c: Yes, EPA continues to consider chemical safety one of the Administrator's top priorities and one of her seven themes (Taking Action on Toxics and Chemical Safety). TSCA implementation is, in particular, a key priority and EPA strives to carry out all of its responsibilities under TSCA within the limits of existing statutory authority and available resources.

d: Can you outline for me what the Agency accomplished in FY 14 in fully implementing its existing TSCA authority?

Answer d: FY 2013 accomplishments are highlighted in the FY 2013 Annual Performance Report, which is included in the FY 2015 President's Budget as an appendix. The FY 2014 Annual Performance Report will be released as a part of the FY 2016 President's Budget in February 2015.

In 2014, EPA is

- Addressing TSCA Work Plan chemicals, conducting risk management activities (e.g. Significant New Use Rules), and developing the final formaldehyde rules.
- Reviewing, and, as appropriate, making regulatory decisions on new chemicals, typically around 1,000 a year.
- Finalizing e-reporting rules and guidance, including issuing final eTSCA rule in FY 2014.
- Expanding public access to chemical and health and safety data, including populating and expanding ChemView, a recently launched database that provides streamlined access to an array of TSCA chemical information.

Question 45: The FY15 Budget justification indicates that there are more than 22,000 CBI claims in health and safety studies as of 2010. Since that time, the Agency has been working to address those claims in the CBI Challenge Program, in which you challenged companies to review and address their claims.

a: Does EPA still contend there were 22,000 CBI claims in health and safety studies now?

Answer a: In 2010, the Agency identified a universe of 22,483 TSCA Section 4, 5, and 8 cases which may have claims for CBI for the chemical identity in the health and safety studies. Through the process of review, the Agency has determined that CBI claims had been made in all these cases, but in many instances, the submissions did not contain health and safety studies.

b: Since the Challenge program was begun, some 16,291 cases were reviewed. Is that correct?

Answer b: Yes, as of March 31, 2013. As reported in EPA's Annual Performance Report for FY 2013, as of September 30, 2013, 17,617 cases had been reviewed.

c: Of those 16,291 cases, 12,043 had no CBI at all. Is that correct?

Answer c: No. The 12,043 cases reviewed is a reference to the subset of the 17,617 cases reviewed through FY 2013 that are largely associated with TSCA section 5 filings, which while they did contain CBI, they did not include health and safety studies with chemical identity claimed as CBI.

d: Would you agree that EPA wrongly classified some CBI claims when in fact there were not CBI claims made? In other words, didn't the 22,000 figure erroneously cite the number of CBI claims made with respect to health and safety studies?

Answer d: No. As explained above, the figure 22,000 (more precisely, 22,483) represents the total number of CBI cases included in the universe of cases initially identified for review. The Agency originally identified these cases as potentially containing CBI claims

for the chemical identity in the health and safety studies. Through the review process for the 17,617 cases to date, EPA determined that all those cases did contain CBI claims. However, in many of those cases, the claims were not for the chemical identity in the health and safety studies.

e: What was the cause of this significant error?

Answer e: To date, all of the cases reviewed contain CBI claims. The older tracking systems from the late 1970s flagged the presence of CBI claims but did not differentiate data types. For this reason, the Agency has stated, on its website and other public forums, that the cases "may have" CBI claims specifically linked to chemical identity and health and safety studies. These cases were not erroneously classified.

f: Would you agree that the perception that industry made excessive CBI claims is in error, and not borne out by the facts?

Answer f: All of the 17,617 cases reviewed through FY 2013 did contain CBI claims.

g: I understand that of the roughly 10,000 cases that in fact had CBI claims, some 3,349 were allowed, 909 have been declassified, and about 7,200 remain to be reviewed. Is that correct?

Answer g: The total number of filings to be reviewed for FY14 is 4,866. The 7,200 number referred to is from March, 2013. By the end of the fiscal year, EPA had increased its reviews to a total of 3,003, bringing the total number of to be initiated reviews down to 4,866 for FY14.

Regarding the 3,003 reviewed filings, in most instances, the filings did not meet the Agency criteria for declassification because the confidential business information (CBI) claims related:

(1) to filings on chemicals or mixtures not actually in commerce, because of chemical identity issues, it was impossible to ascertain inventory status or were filings on non-TSCA uses,
(2) the claims did not relate to health and safety data elements, or
(3) the CBI claims for chemical name were valid under the implementing regulations.

The Agency was able to secure the declassification of 316 filings in FY13.

h: Would you consider the CBI Challenge program a success? What is the Agency doing to make clear that there was a significant error in the number of reported CBI claims, and to more closely track the actual number of claims made?

Answer h: As explained above, there was no significant error in the number of reported CBI claims. Yes, we would consider the program a success for several reasons. First, the program

is directly responsible for the release and public posting, to date, of 1,000 health and safety studies, previously not publicly available, on chemicals. These are largely voluntary declassifications by industry. Second, the program is responsible as well for the posting to the public portion of the TSCA Inventory of the identities of more than 600 chemicals previously treated as confidential. Third, the program has enabled more effective outreach to the regulated community clarifying the statutorily prescribed rules on what can and what cannot be claimed as confidential. The resulting dialogue has resulted in savings for both industry and the Agency.

Topic: Hydraulic Fracturing

Question 46: I am very concerned that the hydraulic fracturing study that EPA has been working on for over four years has gone beyond Congressional intent and has inappropriately expanded in scope. The request to EPA in the FY 2010 appropriations report was for EPA to study any link between hydraulic fracturing and drinking water. Yet four years later, despite serious concerns about how EPA is conducting this study, I understand the agency is now embarking on several new research areas and may have 30 or more separate reports steaming from this study. The agency seems to be studying every water issue related to oil and gas development.

a: What justification does the Agency have for going well beyond the Congressionally mandated scope?

Answer a: The scope of the EPA's *Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources* is responsive to Congress' original request and was supported by the agency's Science Advisory Board in their review of the draft Study Plan in 2011. There has been no expansion of the scope beyond the original appropriations language.

b: What is the current timeline to issue the study?

Answer b: The *Study of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* is national in scope and very complex. The careful and intensive review and synthesis of literature, research results, and stakeholder input, along with the recently intensified state outreach effort, will ensure that EPA's draft science assessment is as robust and complete as possible. We expect to release the draft assessment report for public comment and peer review by early 2015. The EPA then expects to provide a final report that is responsive to comments received from the public and the peer review.

c: What are current total EPA costs to date of this study?

d: What do you expect to be the total costs of the study once it is completed?

Answer c and d: Below is a table of funding for the study for each fiscal year:

FY 2010 Enacted	FY 2011 Enacted	FY 2012 Enacted	FY 2013 Enacted	FY 2014 Enacted	FY 2015 Pres Bud
$1.9M	$4.3M	$6.1M	$6.1M	$6.1M	$6.1M

Please see table above. The current costs of the study through FY 2015 total $30.6 million. EPA has not yet developed its FY 2016 budget request.

e: What is the status of EPA's prospective case studies?

Answer e: We have worked closely with industry partners to try to identify suitable locations for prospective case studies that meet the scientific needs of the study and industry's business needs. Unfortunately, so far, we have not identified a suitable location. For a location to be suitable, it is necessary to gather a minimum of one year of characterization data for ground water and surface water prior to and following unconventional exploration activities in the study area, and for there to be no other hydraulic fracturing activities on adjacent properties, currently or potentially leased, during the entire study period, which could last several years.

Question 47: I am also concerned that this study will be released publicly before there is a peer review by the Science Advisory Board. It is my understanding that EPA plans to release the study to the public at the same time it is submitted for peer review, which is unacceptable and similar to the Agency's actions in their less than credible Pavillion, Wyoming investigation.

a. Isn't this poor process setting the Agency up again for a situation in which EPA may have to back track on findings after the initial draft is peer reviewed?

Answer a: The EPA customarily makes a draft report available for comment at the same time it is submitted for peer review by the Science Advisory Board (SAB). With reference to Highly Influential Scientific Assessments, Section III(5) of OMB's *Final Information Quality Bulletin for Peer Review* states that: "Whenever feasible and appropriate, the agency shall make the draft scientific assessment available to the public for comment at the same time it is submitted for peer review (or during the peer review process)."

b: This type of timeline has been used successfully by the EPA to scare and mislead the public with draft findings which are later debunked or never peer reviewed at all. Isn't this sort of timetable and procedure contrary to the goals of releasing a credible study or one that meets HISA requirements?

Answer b: OMB's *Final Information Quality Bulletin for Peer Review* stresses the importance of public comments in shaping expert peer review deliberations; therefore, the EPA customarily makes a draft report available for comment at the same time it is submitted for peer review by the Science Advisory Board (SAB). Before sharing the draft assessment report with the SAB and the public, the findings from the individual research projects contained in the report will

have undergone both an internal peer review and independent, external peer review (with the exception of Confidential Business Information, whose release is restricted). Additionally, the data themselves will have undergone rigorous quality assurance checks prior to the external peer review.

c: Given the struggles of EPA's previous investigations into hydraulic fracturing and the Agencies severely damaged credibility in this arena, how are you planning on ensuring the scientific validity of this current study?

Answer c: Quality assurance is the procedure used to assure that valid data are generated and used in a study. The data being used in the study have undergone rigorous quality assurance procedures prior to their use in developing research reports and papers and prior to peer review of the reports or papers. Then, peer review ensures that the methodology for data analysis and conclusions drawn from the data are scientifically sound and well founded.

d: How is EPA planning on ensuring that any and all information disseminated to the public as a possible conclusion is properly vetted and peer reviewed if it is releasing conclusions prior to review by the SAB?

Answer d: See answers above. When an agency releases information for the purposes of peer review, it is not considered an official "dissemination" of information to the public. This is made clear by adding a disclaimer notifying the reader that the draft document is being distributed for pre-dissemination peer review and does not represent Agency policy.

Question 48: The Agency has indicated that they will not do a risk assessment to put all this information into some actual context.

a. Why does EPA refuse to conduct a risk assessment as part of the study?

Answer a: Consistent with the scope defined by Congress in its request, EPA's report will provide an assessment of the potential for hydraulic fracturing activities to change the quality or quantity of drinking water resources in the United States. This report will identify factors affecting the frequency and severity of impacts. EPA's report will represent a state of the science synthesis of information concerning the subject and will be national in scope. Consistent with the scope prescribed by Congress' request, we did not conduct site-specific or national predictive modeling to quantitatively estimate environmental concentrations of contaminants in drinking water resources. The report will not be a human health exposure assessment, will not identify populations at risk, nor estimate human health impacts.

b: Does the Agency plan on putting any of the study's findings or conclusions into context? If so, how?

Answer b: Yes. As a state of the science assessment, EPA's report will use information from the scientific literature and government reports, including peer-reviewed publications from research conducted under EPA's *Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources*.[1] We are considering material submitted by the public, industry, and regional and state entities in response to EPA's requests for data and information through stakeholder workshops, roundtables, and Federal Register notice. We also have recently intensified our state outreach efforts as part of the study. These efforts will ensure that states understand the data sources we used and will provide them further opportunity to recommend additional sources of information. These robust and diverse information sources provide a solid scientific foundation and context for EPA's report.

Question 49: You've said that hydraulic fracturing can be done safely and have agreed with former EPA Administrator Lisa Jackson that there have been no confirmed cases of hydraulic fracturing impacting drinking water. What is your vision for getting the American public to understand that hydraulic fracturing is safe and that fracking has unlocked an American energy revolution that has lowered all Americans' energy prices, created jobs, helping lower GHG emissions and revitalizing such industries as the manufacturing, steel and chemical sectors?

Answer: EPA is committed to working with states and other stakeholders to understand and address potential concerns with hydraulic fracturing so the public has confidence that unconventional oil and gas production will proceed in a safe and responsible manner. In so doing, we will continue to follow a transparent, science-driven approach, with significant stakeholder involvement.

Question 50: The DOE and USGS have known experience conducting drilling and water sampling studies in the field. Specifically, DOE's NETL is doing a study in PA's Greene and Washington counties to assess the environmental effects of shale gas production and a July 2013 press release issued by NETL stated that "while nothing of concern has been found thus far, the results are far too preliminary to make any firm claims. We expect a final report on the results by the end of the calendar year."

a: Are you aware of this study?

Answer a: Yes, we are aware of this study.

b: Are you asking that DOE share this type of work and can you use this study in the larger EPA water study?

Answer b: EPA looks forward to receiving the reports for NETL's studies in Pennsylvania's Greene and Washington counties when they become final. As appropriate, we will use the results of NETL's study to inform the development of our study of the potential impacts of hydraulic fracturing for oil and gas on drinking water resources. Additionally, both DOE and

USGS are aware of EPA's ongoing study, our continued progress with that study, and our willingness to consider any relevant papers, reports, or materials that may inform the development of our study.

c: Specifically, would the EPA benefit from the DOE's and USGS's expertise in these issues as part of the EPA's larger water study which continues to drag along and clearly demonstrates that the EPA's taken on more than it can chew?

Answer c: EPA has been and will continue to engage with our interagency partners in DOE and USGS to improve understanding of the potential impacts of developing our Nation's unconventional oil and gas resources so the public has confidence that unconventional oil and gas production will proceed in a safe and responsible manner. We are exchanging information regarding each agency's research related to hydraulic fracturing and drinking water resources. We appreciate the continuing input of DOE and USGS to help inform our assessment as we all work to capture the state of the science concerning hydraulic fracturing and drinking water resources in the United States. The careful and intensive review and synthesis of literature, research results, and stakeholder input, along with the recently intensified state outreach effort, will ensure that EPA's draft science assessment is as robust and complete as possible.

Question 51: Last June, ORO announced it would abandon its flawed drinking water investigation in Pavillion, WY and would instead support a further investigation by the State of Wyoming.

a: Given the flawed science on display by the agency at Pavillion and ORO's withdrawal, will you exclude the agency's work and data prior to June 2013 from the agency's Congressionally-requested study on the relationship between hydraulic fracturing and drinking water? If not, why not?

Answer a: The EPA does not plan to finalize or seek peer review of its draft Pavillion groundwater report released in December 2011 nor does the agency plan to rely upon the conclusions in the draft report.

b: ORD abandoned its investigation, yet according to agency statements, continues to "stand behind its work and data." How can the agency reconcile these directly contradictory actions? How would you explain to the American people that continuing a flawed investigation is not worth taxpayer resources, yet the agency "stands behind" the work and data that it abandoned?

Answer b: As you may be aware from our statement at the time of the State of Wyoming's announcement on June 20, 2013, we believe that EPA's focus should be on using our resources to support Wyoming's efforts, which will build on EPA's monitoring results. In light of the State's commitment to further investigation and efforts to provide clean water to Pavillion residents, EPA does not plan to finalize nor seek peer review of its draft report.

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Wyoming's continuing investigation seeks to address water quality concerns and will consider sampling data obtained through the EPA's groundwater investigation. Wyoming held a public meeting on June 12, 2014, to report on the status of the progress of the investigations and reports and to introduce the independent expert selected for the domestic well investigation. The state sought EPA and stakeholder input on the selection of the independent expert who will provide advice to the state in the completion of their investigation and reports. Michael Acton of Acton Mickelson Environmental Consultants was selected by the State and introduced at the June 12 meeting as the independent expert for the domestic well study. At the June 12 meeting, the state indicated that it has installed the domestic water loadout facility at the Town of Pavillion, formed a water delivery association, installed 18 cisterns for 16 landowners and expects to install another 13 cisterns for 12 landowners by late fall. Also, at the June 12 meeting, the state indicated that it expects to deliver the draft final well bore integrity evaluation report to EPA and Encana mid-July to early August and anticipates delivery to EPA and Encana of the draft surface pits review report sometime between end of July to early August. On July 24, 2014, the state provided notice that the Well Bore Integrity draft report would be issued to the public at the same time this draft report is released to Encana and EPA. The state issued this Well Integrity Review report on August 5, 2014, and is requesting public comment by September 6, 2014.

Question 52: In February the EPA's IG sent a memo to the EPA Office of Water outlining an initiative the IG has underway that will "determine and evaluate what regulatory authority is available to the EPA and states, identify potential threats to water resources from hydraulic fracturing, and evaluate the EPA's and states' responses to them." Do you consider this a duplication of the EPA's efforts as it relates to the multi-year and multi-million dollar hydraulic fracturing and water study currently in process at the EPA and if not, then how do these studies differ? Hasn't EPA independently done this type of evaluation?

Answer: The OIG does not consider its evaluation in this case as duplicative of the study by the EPA's Office of Research and Development (ORD). ORD's Final Study Plan is scoped to the hydraulic fracturing water lifecycle, defined by ORD to include water acquisition, chemical mixing, injection, flowback and produced waters, and wastewater treatment. The OIG will not undertake a review of these matters. The OIG is not conducting independent scientific evaluations, laboratory studies or toxicological studies as planned in ORD's study.

Topic: Water Connectivity Study:

Question 53: EPA recently released a notice of proposed rulemaking that would constitute the greatest expansion of federal control over land and water resources in the 42-year history of the Clean Water Act (CWA). The "Kennedy test" in the *Rapanos* Supreme Court decision calls for the finding of a "significant nexus" between waters for the assertion of federal jurisdiction. The EPA Office of Water asked the Office of Research and Development to conduct a Connectivity Study to help inform the Agency's regulatory policy decisions. If EPA intended for the science to inform policy decisions, the regulatory process should not have been initiated until the

Connectivity Study was completed, along with a robust peer review of the study. That did not happen. In addition, the Connectivity Study is fundamentally flawed since there was no definitional finding of what constitutes a "significant" connection.

a. Do you believe it is important that the "waters of the United States" regulation be based on sound science? If so, how can you justify moving forward with the expansion of the scope of "waters of the United States" before the Connectivity Study is completed and has undergone peer review?

Answer: We agree that it is essential for the Agency's regulatory promulgation to reflect the most current relevant science. In the case of the proposed rulemaking for the definition of "waters of the U.S." under the Clean Water Act (CWA), the EPA's Draft Connectivity Report ("Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence") provides a review and synthesis of over 1,000 pieces of published, peer-reviewed scientific literature regarding the effects that streams, wetlands, and open waters have on larger downstream waters such as rivers, lakes, estuaries, and oceans. The draft report does not reflect new information or new science. The draft report already has undergone both internal and independent external peer review, and is now being reviewed by the EPA's independent Science Advisory Board (SAB). The peer review report from the first peer review is available on the docket for the proposed rule, and the draft Connectivity Report reflects comments from that first peer review. The SAB published its draft peer review on April 1 and held public teleconferences to discuss the draft review on April 28 and May 2. The SAB expects to issue a final peer review report later in 2014. The EPA has committed that the rule will not be finalized until the SAB review and the final Connectivity Report are complete.

Topic: Economic Impacts

Question 54: In performing the cost-benefit analysis required for development of the proposed regulation, why did you choose to use the permitting numbers from 2010 as your baseline? As you know, due to the economic recession occurring at the time, there were scarcely any construction activities initiated during that year and the numbers were deflated. In addition, why did EPA only examine the cost impacts under Section 404 and not for other CWA programs?

Answer: At the time the economic analysis was developed, 2010 permit data was the most current information available. The cost estimate in the economic analysis was based on 2010 dollars, and all cost and benefit information was adjusted accordingly. The EPA analyzed the proposed rule's expected impact to each program under the Clean Water Act. The methodology and findings are documented in "Economic Analysis of Proposed Revised Definition of Waters of the United States," March 2014, which is in the docket for the proposed Waters of the U.S. rule. The agency invites comments on this document as part of the public comment period on the proposed rule and will update the analysis to support the final rule.

Question 55: The economic analysis completed by the agency predicts that only 2.7% more waters will be made federally jurisdictional by the proposed "Waters of the United States" rule. As you know, the analysis - including the 2.7% figure - has been severely criticized by credible economists and is likely to be underestimating the potential impact of the rule. Given the outstanding concerns with the analysis, can you explain why the agency did not wait to go forward with a proposed rule until the agency had addressed these concerns and produced a credible economic analysis to inform the public?

Answer: The economic analysis actually uses a figure of 3.2 percent for the additional waters that would be considered protected by the Clean Water Act (CWA). This figure reflects that a small percentage of non-adjacent "other waters" would be found to have a significant nexus and be subject to CWA jurisdiction under the proposed rule. The 2.7 percent number cited in this question came from the economic analysis for the 2011 draft guidance, which is now superseded by the economic analysis prepared for the proposed rule. We are committed to an inclusive, transparent, review and comment process, ensuring that all interested parties have ample opportunity for input and information for our consideration. The EPA and the U.S. Army Corps of Engineers (Corps) published the proposed rule for public comment on April 21, 2014, with a 91-day public comment period extending to July 21, 2014. That public notice included the agencies' economic analysis, which also is available for the first time for public review and comment. We will address these comments and questions and include them in the official docket, Docket Id. EPA-HQ-OW-2011-0880 at http://www.regulations.gov. The EPA and the Corps will carefully consider these comments in deciding what changes to make to the final rule.

Question 56: David Sunding, Ph.D., recently reviewed EPA's economic analysis associated with the proposed "Waters of the United States" rule and concluded that the errors and omissions in EPA's study are incredibly severe and may render it essentially meaningless. To address these issues, Dr. Sunding recommended that the agency withdraw the economic analysis and prepare an adequate study for this major change in the implementation of the CWA. Would you be willing to withdraw this flawed economic analysis and develop a new analysis addressing these concerns?

Answer: We are committed to an inclusive, transparent, review and comment process, ensuring that all interested parties have ample opportunity to submit information for our consideration. The EPA and the U.S. Army Corps of Engineers (Corps) published the proposed rule for public comment on April 21, 2014, with a 91-day public comment period extending to July 21, 2014. That public notice included the agencies' economic analysis, which also is available for the first time for public review and comment. Dr. Sunding has not yet shared his specific comments with the EPA nor the Corps, and has the opportunity to do so during the comment period. We will address these comments and questions and include them in the official docket, Docket Id. EPA-HQ-OW-2011-0880 at http://www.regulations.gov. The EPA and the Corps will carefully consider these comments in deciding what changes to make to the final rule and accompanying economic analysis.

Question 57: I understand that when assessing the potential economic costs and benefits of EPA's proposed "waters of the United States" rule, the agency omitted analysis of certain key programs that will undoubtedly be impacted by the rule. The agency provides no analysis for costs related to: the development of state water quality standards, monitoring and assessment of water quality, total maximum daily load development, and the entire industrial wastewater NPDES permitting program. In addition, EPA based its abbreviated assessment of impacts on the 311 spill program on "anecdotal" evidence. Can you explain why the EPA omitted or provided very little analysis of these key programs?

Answer: The EPA analyzed the impact to each program under the Clean Water Act. This information is documented in "Economic Analysis of Proposed Revised Definition of Waters of the United States," March 2014, which is in the docket for the proposed Waters of the U.S. rule.

Question 58: The EPA certified that this proposed rule will "not have a significant impact" on small businesses and communities. However, the agency did not gather significant feedback from those impacted prior to the rule being proposed. According to the U.S. Chamber of Commerce, it takes up to 12 months and costs hundreds of thousands of dollars to obtain a wetlands permit. Are you able to assure this committee that the costs and timelines associated with permit reviews will not be extended by this change in jurisdictional definition?

Answer: Under the Regulatory Flexibility Act (RFA), agencies certify whether or not the rule will have a "significant economic impact on a substantial number of small entities." The scope of regulatory jurisdiction in this proposed rule is narrower than under existing regulations. Because fewer waters will be subject to the CWA under the proposed rule than are subject to regulation under the existing regulations, this action will not affect small entities to a greater degree than the existing regulations. As a consequence, this action, if promulgated, will not have a significant economic impact on a substantial number of small entities.

In addition, the agencies sought early and wide input from small businesses while developing the proposed rule. On October 12, 2011, the EPA held an all-day meeting with representatives from small businesses, small government entities, and small nongovernmental organizations, to discuss their perspectives on CWA jurisdictional scope. Attendees also submitted written comments following the meeting. Between fall 2011 and fall 2012, EPA held a series of meetings with local and city governments, including small governments. Small entity input from meetings and written comments have helped inform the draft proposal.

Question 59: The cost benefit analysis supporting the "waters of the United States" proposal contains numerous deficiencies. According to the National Stone, Sand, and Gravel Association the increased mitigation costs for just one site can be $100,000 or more under the new rule. With over 10,000 of these facilities in the U.S. and dozens of industries affected, the costs of this rule have been drastically underestimated. While these deficiencies have been pointed out to EPA and the Corps, the very low estimates are still repeated by EPA and Corps officials. Does the EPA have plans to revise the cost benefit study to address these legitimate concerns?

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Answer: We are committed to an inclusive, transparent, review and comment process, ensuring that all interested parties have ample opportunity for input and information for our consideration. The EPA and the U.S. Army Corps of Engineers (Corps) published the proposed rule for public comment on April 21, 2014, with a 91-day public comment period extending to July 21, 2014. We will address these comments and questions and include them in the official docket, Docket Id. EPA-HQ-OW-2011-0880 at http://www.regulations.gov. The EPA and the Corps will carefully consider these comments in deciding what changes to make to the final rule and accompanying economic analysis.

Question 60: As you know, there are several new definitions and concepts contained in the proposed "Waters of the United States" rule. As a result, there is a distinct possibility that agencies will have to spend more money determining how to actually implement this rule. There also is a strong likelihood that other agencies' programs will be impacted given the broad scope of this proposed rule.

a: Has EPA consulted with other federal agencies that have administrative responsibilities under the Clean Water Act?

Answer a: Yes. The proposed rule was developed jointly with the U.S. Army Corps of Engineers, which is the principal regulator for the Section 404 program. The EPA also had discussions with other federal agencies during the interagency review process which ran from September 2013 through March 2014.

b: Has EPA considered the costs that the EPA and the Corps will incur, without considering other actors, in determining how this rule will be implemented?

Answer b: Yes. The economic analysis analyzes the proposed rule's expected impact to each program under the Clean Water Act, including the costs to the implementing agencies.

c: Does EPA know how other agencies will interpret this rule and whether other agencies will require additional resources in order to understand how their ability to administer their own programs might be affected?

Answer c: Yes. In accordance with Executive Order 12866, the proposed rule was subject to interagency review. The EPA and the Corps of Engineers had discussions with agencies on how the rule might affect their programs. However, these discussions did not identify a need for additional resources for these agencies.

Topic: Clean Water Act Permitting

Question 61: In light of EPA's recent actions concerning Pebble Mine and Spruce Mine, the regulated community is understandably concerned about the lack of certainty currently

surrounding the Section 404 permitting process. How does EPA intend to address these concerns and ensure that the regulated community can have their projects fairly considered and can rely on their permits once they are issued? Would you agree that finality is an important consideration for permits?

Answer: The EPA takes very seriously the authority provided to the agency by Congress, pursuant to Section 404(c) of the Clean Water Act (CWA), to determine whether discharges of dredged or fill material into a specified site in waters of the U.S. would result in an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas.

The EPA's careful use of this authority is indicated by the fact that the agency has completed just 13 Final Determinations since 1972 pursuant to CWA Section 404(c). To put this in perspective, over the same period of time, the Corps of Engineers is estimated to have authorized more than two million activities in waters of the U.S. under the CWA Section 404 regulatory program.

As these numbers demonstrate, the EPA has worked successfully with the Corps and permit applicants to resolve concerns without exercising its Section 404(c) authority in all but a miniscule fraction of cases.

Question 62: According to EPA, the agency initiated the Bristol Bay Watershed Assessment in response to a petition for EPA to exercise its CWA Section 404(c) authority. Has the agency received any other similar petitions, and if so, what has been requested? Has the agency received any petitions concerning the agency's use of Section 404(c) on any existing permits?

Answer: No, to both questions.

Question 63: Does EPA have any plans to potentially perform studies on or initiate the 404(c) process on any other waters at this time? If so, where?

Answer: No.

Question 64: Does EPA have any plans to potentially reevaluate any existing Section 404 permits pursuant to its claimed Section 404(c) authority? If so, which ones?

Answer: No, the agency does not have any such plans.

Question 65: Has the EPA evaluated the consequence of its actions with respect to Bristol Bay and Spruce Mine and the impact the uncertainty will have on investment in natural resource development?

Answer: The restrained and judicious use of EPA's Section 404(c) authority has provided the business community with a high level of investment certainty while also ensuring protection of the nation's most valuable and vulnerable water resources.

Question 66: Could regulatory uncertainty over Section 404 permits drive away investment at the cost of American jobs? Has the EPA studied this issue?

Answer: The EPA takes very seriously the authority provided to the agency by Congress, pursuant to Section 404(c) of the Clean Water Act (CWA), to determine whether discharges of dredged or fill material into a specified site in waters of the U.S. would result in an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas.

The EPA's careful use of this authority is indicated by the fact that the agency has completed just 13 Final Determinations since 1972 pursuant to CWA Section 404(c). To put this in perspective, over the same period of time, the Corps of Engineers is estimated to have authorized more than two million activities in waters of the U.S. under the CWA Section 404 regulatory program.

As these numbers demonstrate, the EPA has worked successfully with the Corps and permit applicants to resolve concerns without exercising its Section 404(c) authority in all but a miniscule fraction of cases. Given the very few instances where the EPA has invoked its Section 404(c) authority, the EPA has not studied the effect of using this authority on investment or jobs.

Question 67: Many states have primacy over their Surface Mining Control and Reclamation Act (SMCRA) permitting programs, and as such, many states expend a great deal of time and resources in the mine permitting process. What effect would a lack of finality in CWA Section 404 permits have on state SMCRA permitting scheme?

Answer: The EPA has taken final action pursuant to its Clean Water Act (CWA) Section 404(c) authority with respect to a surface coal mining project only once (in 2011) in the more than 40-year history of the CWA. As such, the EPA does not believe that the agency's single and judicious use of its authority has meaningfully disrupted other agencies' authorities under the Surface Mining Control and Reclamation Act (SMCRA). It also is important to note that SMCRA and the CWA are separate statutes, each with independent authorities and responsibilities.

Question 68: The President, in executive orders and public statements, has said that streamlining the permitting process for energy projects - particularly those necessary to support renewable energy projects - is a high priority for his Administration. As you know, individual permits, by definition, take longer to get approved. Due to the proposed rulemaking, it's likely that more individual federal permits will be required, especially for energy projects. Where a federal permit is required, other federal requirements also are imposed (NEPA, potential ESA

consultations, historic preservation review, tribal consultations, and citizen suit enforcement), thus lengthening the processing time. Can you explain how this outcome is consistent with the President's streamlining objective?

Answer: The proposed rule does not alter the Clean Water Act Section 404 permitting process administered by the U.S. Army Corps of Engineers and two authorized states. The proposed rule does not alter the Corps' existing nationwide permits (NWPs) that currently streamline the permitting process for many energy projects, such as NWPs 8, 12, 17, 44, 51, and 52. The proposed rule may require additional permits than under current practice, but will expedite the permit review process in the long-term by clarifying jurisdictional matters that have been time-consuming and cumbersome for field staff and the regulated community for certain waters in light of the 2001 and 2006 Supreme Court cases.

Question 69: While the Administration has committed to streamlining and expediting permitting for major infrastructure projects that advance energy (e.g., Executive Order 13604, Blueprint for a Secure Energy Future), there is some concern that this proposed rulemaking will have the opposite effect. This is because EPA's proposed rule creates new sub-categories of water that could be subject to federal jurisdiction, preempts states' rights to regulate internal waters traditionally regulated only by the states, and creates a cumbersome review process for determining which waters are jurisdictional under the new definition of "Waters of the United States."

a: Can EPA guarantee that this rule will not further delay permitting for energy infrastructure projects?

Answer a: The proposed rule does not alter the Clean Water Act Section 404 permitting process administered by the U.S. Army Corps of Engineers and two authorized states. The proposed rule does not alter the Corps' existing nationwide permits (NWPs) that currently streamline the permitting process for many energy projects, such as NWPs 8, 12, 17, 44, 51, and 52. In general, the agencies believe that the proposed rule will expedite the permit review process in the long-term by clarifying jurisdictional matters that have been time-consuming and cumbersome for field staff and the regulated community for certain waters in light of the 2001 and 2006 Supreme Court cases.

b: Has EPA and the Army Corps considered the Administration's goals for energy development and infrastructure expansion in formulating this rule? If so, is that consideration discussed in the rule or elsewhere? Have the agencies requested comments on how this rule might impede the development of energy projects?

Answer b: The proposed rule does not alter the Clean Water Act Section 404 permitting process administered by the U.S. Army Corps of Engineers and two authorized states, or the Section 402 permitting process administered by 46 states and the EPA. For this reason, the

agencies did not explicitly consider the Administration's goals for energy development and infrastructure expansion in formulating the proposed rule.

The EPA and the Army Corps welcome comments on their proposed rule on this and other issues. We are committed to an inclusive, transparent, review and comment process, ensuring that all interested parties have ample opportunity for input and information for our consideration. The EPA and the U.S. Army Corps of Engineers (Corps) published the proposed rule for public comment on April 21, 2014, and comments may be submitted via the official docket, Docket Id. EPA-HQ-OW-2011-0880 at http://www.regulations.gov. The original comment period ended on July 21, but on June 10, the agencies notified stakeholders that the public comment period was being extended to October 20, 2014. The EPA and the Corps will carefully consider comments in deciding what changes to make to the final rule.

c: In the cost benefits analysis for this rule, do the agencies consider any of the potential negative impacts that this rule could have on energy sector development such as: new delays in permitting projects, more cumbersome consultations between state and federal agencies, and more permits needed for the same projects?

Answer c: Because the proposed rule does not change the Clean Water Act Sections 402 and 404 use of general permits, the EPA found that the proposed rule would not have a significant adverse effect on the supply, distribution, or use of energy. This statement is found in the preamble to the proposed rule in section IV.H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use.

Topic: Fill Material:

Question 70: The current definition of fill material, finalized in May 2002, solidified decades of regulatory practice by unifying the Corps and EPA's prior conflicting definitions so as to be consistent with each other and the structure of the CWA. However, both EPA and the Corps have stated that they are considering revising the definition of fill material. These changes could mean that certain mining-related activities would be deemed illegal, thereby preventing mining companies from operating. The FY 2014 Omnibus appropriations bill included language to prevent the Corps form working on any regulation that would change the definition of fill material.

a. Has EPA engaged in discussions with the Corps on revising the rule?

Answer a: During past years, the Corps and the EPA have discussed actions for the definition of "fill material" that could provide additional clarity. However, the EPA has no active discussions with the Corps in FY 2014 on revising the agencies' definition of "fill material."

b: What is EPA's rationale for potentially revisiting the well-established division of the Sections 402 and 404 programs?

Answer b: The EPA has no active discussions with the Corps in FY 2014 on revising the agencies' definition of "fill material."

c. What specific problems is EPA seeking to address by revisiting the definition of fill material, and how exactly is EPA intending to address them?

Answer c: The EPA has no active discussions with the Corps in FY 2014 on revising the agencies' definition of "fill material."

Topic: Chemicals

Question 71: In the EPA's proposed FY 2015 budget, the agency is requesting $23 million in FY 2015 to support activities under the President's Executive Order on chemical safety, as well as Agency efforts on chemical prioritization, air toxics, radon, and volatile organic compounds in drinking water.

a: Can you provide more specific information on the projects this funding will go towards?

b: Do you agree that we need to improve the Local Emergency Planning Committee (LEPC) program and Emergency Planning & Community Right-To-Know Act (EPCRA) reporting system?

c: Will this funding go towards the development of new technology such as a mobile app version of the CAMEO system and the development of a web-based version of EPCRA Tier II submission to facilitate a more accurate and complete hazardous materials reporting system? Such improvements will allow local first responders to prioritize the hazards they may face at the facility.

Answer: Slightly more than half of the resources, $11.5 million and 11.5 FTE, will support activities under Executive Order 13650 on Improving Chemical Facility Safety and Security. Specifically, these funds will be used to:

(1) Provide technical assistance and guidance to State Emergency Response Commissions (SERCs) and Local Emergency Planning Committees (LEPCs) in order to improve communications, risk analysis capabilities, and local emergency planning. This will include developing a new pilot grant program to assist local communities, planners, and responders with developing and implementing local emergency contingency plans;
(2) Conduct additional outreach and technical assistance with chemical facilities to improve safety and security and to reduce risk of hazardous chemicals to workers and communities. This will include revising the RMP rule in line with recommendations from industry and other stakeholders and developing guidance, advisories, and alerts;
(3) Enhance the Computer-Aided Management of Emergency Operations (CAMEO)

system to include development of a web-based suite for states and a viewer for mobile devices, which would provide easy accessibility for SERCs and LEPCs as well as develop a web-based version of EPCRA Tier II submission to facilitate a more accurate and complete hazardous materials reporting system.

(4) Additionally, EPA will work with our Federal partners to identify technical assistance opportunities to improve State and local emergency plans and training; expand training opportunities for federal and state RMP/EPCRA partners; and establish a mechanism for data sharing with other Federal agencies.

Of the remaining resources requested:

- $5 million and 5.0 FTE will provide additional support to enhance the analytical capabilities required to develop regulations, to continue to progress in developing the National Air Toxics Assessment (NATA), to update methods for estimating area and mobile source emissions, and to update air dispersion modeling based on recent advances in the science.

- $3 million will accelerate EPA's expansion of the risk-based prioritization effort for application to TSCA chemicals, across toxicological endpoints and exposure scenarios beyond those used with endocrine disruptors. Specifically, these funds would be used to: (1) model and generate exposure data; (2) evaluate background exposure levels and biological relevance of environmental exposures; and (3) translate for fit-for-purpose risk-based prioritization.

- $2.5 million and 4.0 FTE will advance the agency's efforts to achieve the goal of releasing 19 draft chemical risk assessments for public comment and peer review and complete 10 final risk assessments (cumulatively) by the end of FY 2015. These accomplishments also will support the agency's longer-range strategic planning commitment to address all currently identified TSCA Work Plan Chemicals by FY 2018.

- $1 million and 2.0 FTE will support increased focus on regulating groups of drinking water contaminants, such as volatile organic compounds (VOCs), resulting in effectively addressing potential collective risks of contaminants generally recognized to be present together and demonstrating a predictable strategy for regulating similar contaminants and/or groups in the future.

- $500 thousand and 1.5 FTE will be used to update radon risk assessment and cost-benefit analyses and begin work to improve radon data management.

Question 72: In the case of the West Texas fertilizer facility tragedy that occurred on April17, 2013, it appears that the facility was not compliant with a number of existing regulations and industry standards. Do you agree that had existing regulatory requirements and industry standards been fully implemented by West Fertilizer this tragic accident would not have happened?

Answer: EPA has not determined whether the facilities in West, Texas were compliant with all existing federal and state rules and regulations because investigations into the incident, including an investigation by the U.S. Chemical Safety Board (CSB), remain ongoing.

Question 73: Do you agree that we need to improve the Local Emergency Planning Commission (LEPCs) program and Emergency Planning & Community Right-To-Know Act (EPCRA) reporting system?

a. What would EPA recommend to improve and enhance education / training / emergency response efforts between chemical facilities and their local LEPC and first responders?

Answers a: EPA is participating with other Federal agencies on a Working Group established by the Presidential Executive Order on *Improving Chemical Facility Safety and Security* (EO 13650) to enhance coordination across all levels of state and local government and enhance outreach and information sharing with the chemical industry, emergency managers, first responders, and other stakeholders.

One of the five key areas addressed under EO 13650, is strengthening community planning and preparedness. The EPA is working to improve LEPC programs by developing guidance materials and on-line training to explain roles, responsibilities and authorities under EPCRA to implement local emergency planning. EPA plans to enhance the Computer-Aided Management of Emergency Operations (CAMEO) system by added web-based applications for mobile devices to improve accessibility to LEPCs and State Emergency Response Commissions (SERCs). EPA also plans to develop a web-based version of EPCRA's Tier II Submit electronic reporting system to support state development of internet reporting tools. The Working Group's status report to the President released on June 6, provides detailed information on Working Group priority actions and sets the path forward for continued implementation and sustained coordination and collaboration to improve the safety and security of chemical facilities. A description of Working Group priority actions can be found at: https://www.osha.gov/chemicalexecutiveorder/EO_Fact_Sheet_060514.pdf.

b. Do you agree that the main issue related to the West Fertilizer tragedy was a storage issue, not an air release issue?

Answer b: The Chemical Safety Board (CSB) is still investigating the root causes and contributing factors associated with the West Fertilizer tragedy. We will not prejudge the outcome of the investigation as to the "main issue" at West Fertilizer. However, improper storage is an accidental release prevention issue under CAA 112(r). For example, EPA RMP rules are required to "cover storage, as well as operations" pursuant to CAA 112(r)(7)(B)(i). Proper storage practices can prevent accidental releases.

Question 74: The EPA Risk Management Program (RMP) was authorized by Congress in the "Clean Air Act Amendments of 1990" following the Bhopal, India accident in 1984. In previous EPA testimony before Congress, the agency stated that the "goal of the EPA's Risk Management Program is to prevent accidental releases of substances to the air that can cause

serious harm to the public and the environment from short-term exposures, and to mitigate the severity of releases that do occur."

a. Is this still the goal of the agency?
b. How does EPA define short-term exposure?
c. Is this consistent with past EPA interpretations?
d. Do you agree there are statutory factors the agency needs to consider when adding any hazardous substances to the RMP list? If yes, could you list the factors EPA is required to consider?
e. Would you agree that a product such as solid fertilizer grade ammonium nitrate was never intended to be part of the EPA RMP program as the focus of the program is to address accidental toxic releases into the air from a hazardous gas or liquid?

Answer: The EPA's Chemical Emergency Preparedness and Prevention Program has responsibility for the national regulatory framework to prevent, prepare for and respond to catastrophic accidental chemical releases at industrial facilities throughout the United States. The goal of the Risk Management Program is to prevent major chemical accidents from causing disasters by establishing a prevention and response program.

For the chemicals currently listed under our rules for the RMP, EPA defines short term exposure in the following ways:

- Toxic chemicals - EPA based its listing decisions on the median lethal airborne concentration or dose of each substance, along with the chemical's volatility. The time frame for lethal effects varies by chemical, but is generally measured as a period of minutes, hours, or days.
- Flammable chemicals - EPA based its listing decisions on the potential for the substance, if released, to form a vapor cloud, explode, and immediately cause serious injuries or damage offsite.

In adding substances to the RMP list, the Clean Air Act requires EPA to consider the following criteria: 1) the severity of any acute adverse health effects associated with accidental releases of the substances; 2) the likelihood of accidental releases of the substances; and 3) the potential magnitude of human exposure to accidental releases of the substances (CAA 112(r)(4)).

EPA does not agree that the inclusion of substances on the RMP list is limited to only hazardous gases or liquids. As provided for under Clean Air Act Section 112(r), the focus of RMP is on substances that pose the greatest risk of causing death, injury, or serious adverse effect on human health or the environment from accidental releases.

Question 75: The U.S. chemical industry is one of the most regulated industries in the world and data shows that the industry is one of the safest. This is due to an existing set of safety and security laws, regulations and voluntary programs. Do you agree that EPA should focus its time and resources on increasing training, outreach and education efforts to the

regulated community in order to help with compliance assistance and focus enforcement on companies with a history of noncompliance?

Answer: EPA is participating with other Federal agencies on a Working Group established by the Presidential Executive Order on *Improving Chemical Facility Safety and Security* (EO 13650) to enhance coordination across all levels of state and local government and enhance outreach and information sharing with the chemical industry, emergency managers, first responders, and other stakeholders. Two of the five key areas addressed under EO 13650, is strengthening community planning and preparedness and enhancing federal operational coordination. As part of this effort, the Working Group implemented a pilot in the New York-New Jersey area to coordinate chemical facility preparedness planning and response activities. One of the greatest benefits from the pilot was the discussion of safety and security issues among all levels of government, the first responder community, and stakeholders. This interaction among pilot participants resulted in better working relationships, greater understanding of agency programs, coordination of work in the field, and sharing of critical information and data.

In addition, EPA provides Risk Management Plan (RMP) training for the regulated community, and conducts frequent outreach and education through a variety of means, including conducting training webinars, making presentations at trade association meetings and national conferences, providing training seminars, publishing written guidance materials available via the internet, operating a call center, and conducting direct facility compliance assistance.

RMP enforcement efforts include an increasing emphasis on the inspection of high-risk facilities, which include facilities with a history of serious accidents, facilities with very large quantities of regulated substances, and facilities with large surrounding populations.

14000-8909

Questions Submitted for the Record by Senator Wicker

Question 1: I was disappointed to see that you are proposing eliminating funding for beach monitoring grants under the BEACH Act. These programs are vital to over 35 coastal communities, including my home state of Mississippi. These funds help support water quality and public notification systems.

What is the EPA's rationale for eliminating funding for the beach monitoring grant program in the 2015 budget request?

Answer: The FY 2015 budget meets the challenges of domestic spending constraints while still fulfilling EPA's mission to protect public health and the environment. The agency is proposing to eliminate certain mature program activities that are well-established, well understood, and where there is the possibility of maintaining some of the human health benefits through implementation at the local level. While beach monitoring continues to be important to protect human health, states and local governments now have the technical expertise and procedures to continue beach monitoring without federal support, as a result of the significant technical guidance and financial support the Beach Program has provided.

Furthermore, I would like to know more about the Clean Water Act and Clean Air Act.

Question 2: What percentage of local communities are currently in compliance with EPA requirements under the Clean Water Act and the Clean Air Act respectively?

Answer: There are a variety of requirements under federal law to protect health and the environment in communities. These requirements include provisions to reduce the discharge of raw sewage and contaminated stormwater into community rivers and residents' basements, requirements to protect the safety of drinking water, and restrictions on the emissions of air pollutants that can cause serious health problems. Some facilities to which these requirements apply are operated by local government entities and some are privately operated. For the purposes of this response, EPA is defining the compliance status of communities by the compliance status of regulated facilities within those communities.

The great majority of the information we have on compliance is self-reported – the facility itself monitors and reports on its compliance with the applicable rules. States and EPA do not have the resources to inspect even the large facilities sufficiently frequently to independently verify compliance. Smaller facilities present an even bigger challenge. In addition, our compliance data is primarily at the facility level, and it is not always easy to tell from the data which facilities are publicly operated and which ones are privately operated.

For our data on facilities with Clean Water Act obligations, it is somewhat easier to distinguish private from publicly operated facilities, and most sewage treatment facilities are

publicly run. We only have reliable data for major water dischargers (which means over 1 million gallons a day discharge); we cannot respond to your question for facilities smaller than that. Our records show that in 2013 there were 4,041 major publicly owned sewage treatment plants. In 2013, twenty-eight percent of these reported significant non-compliance, which are the more serious violations. Mayors across the country are concerned about these levels of violations and the importance of clean water to their residents. This is one of the reasons that we have had a multi-year effort, working with the Conference of Mayors and others, to adopt new more flexible approaches to better plan for protecting clean water, prioritizing the most important problems first, and find cost effective ways to remedy problems, while returning other benefits to the community, as we are doing with innovative green infrastructure approaches. We invite you to learn more about these approaches and the benefits they are creating for local communities in clean water, reduced energy demand and more livable communities at http://cfpub.epa.gov/npdes/integratedplans.cfm.

In the Clean Air program our data is less complete. Our records for 2013 indicate that there were 7,104 sources regulated under the Clean Air Act that were owned or operated by a county or municipality. In 2013, approximately 1.3% of these facilities were reported as in High Priority Violation status at some point during the year. For a variety of reasons, that is probably an under estimate of the actual violations. In the air program on-site inspections are an even bigger component of identifying serious violations, and, as with water pollution sources, states and EPA cannot inspect a significant portion of the facilities due to constrained resources. Accordingly, it is difficult to say with any confidence what number of facilities are in compliance. We know that communities across the country are concerned about the safety of the air they breathe, and we work hard with our state partners to identify and address the most serious violations.

Question 3: How many Voluntary Consent Agreements, or other similar judicial device, has the EPA entered into regarding the Clean Water Act and the Clean Air Act?

Answer: It appears that your question is asking about publicly owned facility judicial consent decrees. For publicly owned facilities, our data shows the following:

- During the period 2009 – 2013, EPA concluded 47 judicial consent decrees and 1 judicial order to address Clean Water Act violations at municipalities including Publicly Owned Treatment Works (POTWs), Combined Sewer Systems (CSOs), Sanitary Sewer Overflows (SSOs), and Municipal Separate Storm Sewer Systems (MS4s).

- During the period 2009 – 2013, EPA concluded 10 judicial consent decrees to address Clean Air Act (CAA) violations at county or municipal facilities.

Question 4: What has been the financial impact of those agreements on local communities?

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Answer: The biggest part of our agreements with all community operated facilities under the Clean Water Act is generally the expense of undertaking the maintenance, repair and upgrading work that has been too long deferred. Pipes that have cracked or eroded, treatment plants that cannot handle the amount of sewage and contaminated stormwater being sent their way, and facilities that have not had the necessary O&M, are all examples of problems that the community addresses through our agreements. One of the challenges of these agreements is that the people who often bear the expense of the too long deferred maintenance and upgrades are the same people who bear the burden of exposure to raw sewage in local waterways or even their own basements, unsafe drinking water, and air that can aggravate asthma or cardiopulmonary disease, among many other problems.

For this reason, EPA works closely with communities through these agreements to get the most important work for protecting health accomplished in the most cost effective way, and on a schedule that is practical and affordable. The costs vary widely depending on the type of problem and the length of time that it has gone unaddressed.

We have been working with the Conference of Mayors and other groups to create additional flexibility to prioritize projects, consider appropriate length of schedules and other means to ensure that the methods chosen by the local community are affordable and practical, and reduce the financial impact of these agreements. The scope, schedule and cost framework for each agreement is different, and we fully agree with the communities' request that each situation be recognized as unique and treated in a way that is both consistent with the protections of the law and reasonable for the community.

Following up with questions from the hearing regarding EPA's Clean Air section 105 air quality management categorical grant program, I would like to ask the following questions.

Question 5: What is the allocation formula for the State Air Grants based on?

Question 6: When the allocation formula was first implemented, what was the distribution of funds to EPA regions?

Question 7: What are the projected changes in the distribution of funds for EPA regions after the new allocation formula is implemented?

Answers 5, 6, 7: EPA remains committed to beginning to implement the updated section 105 allocation formula in FY 2015. Working with our state and local partners, we will minimize disruption to their ongoing program operations by phasing the new formula in over a reasonable period of time.

To distribute the state air grants, the EPA allocates the section 105 grants to the 10 EPA Regions. Each region then negotiates individual workplans with recipients and awards the grant funding.

In implementing the new formula and assuming level funding, the northeast and northwest areas of the country (EPA Regions 1 and 10) would experience decreases by approximately a quarter and a third respectively in their distribution of resources. The southeast (EPA Region 4) distribution would increase by approximately a quarter. Some areas of the country would see smaller decreases (EPA Regions 5 and 6) while the remaining would see more modest increases (EPA Regions 2, 3, 7, 8, and 9).

To help mitigate the impact of the new allocation formula to state programs, we intend to implement a phased-in approach over a multi-year period beginning in FY 2015. To protect the integrity of ongoing state/local air program operations, we intend to moderate shifts in funding so that no Region would experience a decline of more than 5% of its prior year funding level in any one year.

Note: Since FY 2011, Congressional report language has directed EPA to continue to allocate funds under the old methodology.

EPA Region	FY 2014 Section 105 Direct Award Allocation % by Region	% from Updated Direct Award Allocation by Region	% Change with Implementing Updated Allocation
Region 1	8.55	6.18	-27.72
Region 2	9.43	9.76	3.50
Region 3	11.01	11.57	5.09
Region 4	12.42	15.31	23.27
Region 5	16.70	15.19	-9.04
Region 6	9.86	8.83	-10.45
Region 7	3.74	4.01	7.22
Region 8	5.37	5.77	7.45
Region 9	17.57	19.71	12.18
Region 10	5.35	3.67	-31.40
	100.00	100.00	

14-000-8909

Questions for the Record Submitted by Senator Fischer

Question 1: The EPA has issued a number of new regulations regarding emissions from electric generating units. What is the EPA's ultimate goal? Is the EPA trying to force utilities to take coal-fired power plants out of operation?

Answer: The EPA's mission is to protect human health and the environment. The proposed limits on carbon pollution from new and existing power plants are intended to implement the provisions of the Clean Air Act in a way that takes into account costs as appropriate, and the EPA expects that they will result in a continued diverse fuel mix.

Question 2: Is it fair to say that EPA would like to see the U.S. lessen its dependence on coal for electricity production?

Answer: The EPA is implementing the provisions of the Clean Air Act to reduce harmful air pollution from electricity production, while still maintaining a diverse energy supply that includes an important role for coal and natural gas.

Question 3: The EPA will soon be announcing new proposed regulations regarding greenhouse gas emissions from existing power plants. Do commercially available technologies currently exist to capture and store carbon emissions at power plants?

If yes, where? At what cost? Will vendors be able to deal with the demand created by the regulations?

Answer: In the recently issued Clean Power Plan, the EPA did not propose that retrofit carbon capture and storage is the "best system of emission reduction... adequately demonstrated" for reducing CO_2 at existing power plants.

Question 4: The power sector has announced the retirement of over 60 giga-watts of coal fired generation. This amounts to about 20 percent of the existing coal-fired generating capacity in the United States. These retirements will generally occur before 2020, with a great majority of the retirements occurring by the 2016 Mercury and Air Toxics Standards ("MATS") deadline. This loss of coal fired capacity is likely to continue due to new EPA rules, including the new CO_2 regulations for existing power plants, regulation of coal ash, and regional/local control measures required to attain the more stringent ozone and fine $PM_{2.5}$ standards. Furthermore, electric reliability problems posed by the continued loss of coal fired capacity could be exacerbated by the retirement of baseload nuclear generation. According to a recent white paper by Senator Murkowski: "Just last year, four nuclear reactors were closed, and a fifth unit is scheduled to close in 2014. Two of these facilities ... cited economic reasons as the basis for their closures even though the facilities received license renewals."[4] The power sector faces major challenges as to how it will replace a large amount of coal and nuclear baseload capacity. Please explain how the Agency intends to address this issue with regards to the upcoming section III (d) rule, including the steps it plans to take to ensure the reliability of the grid.

[4] See Murkowski White Paper at page 9, footnote 41.

Answer: With an all-of-the-above approach, the Clean Power Plan recognizes that state plans for emission reductions can, and must, be consistent with a vibrant and growing economy and supply of reliable, affordable electricity to support that economy. It further reflects the growing trend, as exemplified by many state and local energy policies and programs, to shift energy production away from carbon-intensive fuels to a modern, more sustainable system that puts greater reliance on renewable energy, energy efficiency, and other low-carbon energy options. Based on our analysis, we expect that coal, oil, and natural gas will have an important role in a diverse U.S. energy mix for years to come. Under the proposed Clean Power Plan, the EPA projects that coal would have a 31% share of generation and natural gas would have a 32% share of generation in 2030. EPA's analysis shows that the proposed Clean Power Plan is unlikely to have any significant effect on electricity reliability. If a local reliability concern arises, the EPA is confident that it can be managed with existing tools and processes – especially taking into consideration the timing and compliance flexibilities in the guidelines.

The EPA estimates that the combined public health and climate benefits from the Clean Power Plan will be worth an estimated $55 billion to $93 billion in 2030. The public health and climate benefits are associated with emissions reductions achieved by the proposed rule alone. When the EPA estimates the benefits for rules, we include other rules that place emissions limitations on sources, such as MATS, CAIR, and various State programs, in the "baseline." This confirms that we have not double-counted any of the emissions, benefits, or costs that should be attributed to another rule.

Question 5: Given that efficiency improvements will be critical for lowering CO_2 emissions from power plant under any future section 111 (d) rule, what is the agency doing to remove the existing regulatory barriers to completing such efficiency improvement measures under the New Source Review program?

Answer: The EPA agrees that efficiency improvements can be a cost-effective way to reduce CO_2 emissions. The Clean Power Plan identifies efficiency improvements at fossil-fuel fired units as one of the building blocks of the best system of emission reduction for existing power plants. Under the proposed Clean Power Plan, states and units can work together to decide what kind of efficiency upgrades and emission changes might occur at a particular source. As a result of such flexibility and anticipated state involvement, the EPA expects that a limited number of affected sources would trigger NSR when states implement their plans. The EPA is requesting comment on whether, with adequate analysis and support, the state plan could include a provision that sources would not trigger NSR when complying with the standards of performance included in the state's Clean Power Plan.

Question 6: In the proposed rule, EPA makes its "adequately demonstrated" determination predominantly based on CCS demonstration projects that have received federal assistance under the Energy Policy Act of 2005 (EPAct05). Notably, three of the four commercial scale CCS demonstration relied on by EPA have all been allocated an investment tax credit that was

established for "clean coal facilities" under Section 1307 of EPAct05. However, Congress has placed specific limitations on EPA's authority to set Section 111 standards based on demonstration projects that receive federal assistance under these EPAct05 programs. Specifically, these statutory limitations expressly bar EPA from considering the three commercial-scale CCS demonstration projects in making a determination under Section 111 that CCS is adequately demonstrated. Please explain why the Agency is ignoring this statutory limitation in the pending NSPS rulemaking.

Answer: The EPA does not believe that these provisions preclude its determination. The EPA has issued a Notice of Data Availability (NODA) that notes the availability of a Technical Support Document (TSD), in the rulemaking docket that details its position on this issue. It explains, "EPA interprets these provisions to preclude EPA from relying solely on the experience of facilities that received EPAct05 assistance, but not to preclude EPA from relying on the experience of such facilities in conjunction with other information." Moreover, EPA based its determination on a number of projects and other information including projects that did not receive any assistance under the EPAct05. In addition, the agency extended the public comment period for January 2014 proposal by 60 days to allow adequate time for the public to review and comment on the contents of the NODA and TSD.

Question 7: EPA's proposed rule defining the term "Waters of the United States" should allow stakeholders sufficient time to submit a robust and meaningful response to the proposal. Stakeholders need adequate time to develop analytical, technical, and economic information in response to the proposal. I understand that EPA and the Corps have taken years to develop a proposed rule. Will you commit to providing the public no less than 180 days for public comment?

Answer: The EPA and the Corps published their proposed rule clarifying protection under the Clean Water Act in the *Federal Register* on April 21, which began a 91-day public comment period that ends on July 21, 2014. The agencies' proposed rule was made publicly available on March 25. On June 10, 2014, the agencies notified stakeholders that they would extend the public comment period to October 20, 2014. This extension provides the public with 182 days to provide comment.

Question 8: In the proposal of the rule redefining "Waters of the United States," ditches are now considered to be part of the definition of a "tributary," which make them now come under federal jurisdiction, no "significant nexus" analysis even needed. How many ditches are now going to be a "water of the U.S." under this rule? We have a lot of ditches in my part of the country and if EPA is in the game of regulating them, fanners and ranchers are going to be pretty upset. The agriculture exemptions are not enough, farmers and ranchers are still going to have to get NPDES permits and 404 permits for things like spraying fields and pastures near ditches and ponds.

Answer: The proposed waters of the U.S. rule do not regulate any new types of waters and does not broaden historical coverage of the Clean Water Act. It does not expand regulation of

ditches, as certain ditches are currently regulated under our existing regulations. It, in fact, proposes to reduce jurisdiction over ditches by excluding certain intermittent ditches which are considered to be jurisdictional under existing regulations and the December 2008 guidance which is currently in effect. The proposed rule does this in section (b) of the regulatory language which states: "The following are not waters of the United States notwithstanding whether they meet the terms of paragraphs (a)(1) through (7) of this section." This language means that if a ditch qualifies as being exempt under paragraph (b), then it is exempt regardless of whether the ditch meets the definition of a tributary.

Question 9: How many more farms will need an SPCC plan based on the proposed rule? Will more livestock operations need 402 NPDES permits under this rule? Will more landowners need 404 permits?

Answer: The U.S. Army Corps of Engineers' and EPA's proposed rule, if finalized, would result in a narrowing of the scope of Clean Water Act (CWA) jurisdiction compared with the agencies' historic interpretations and their existing regulations. As such, the agencies do not anticipate many additional (or more) farms will require SPCC Plans or CWA permits under the proposed rule than are required currently. However, the agencies recognize that their efforts to make CWA definitions clearer and more consistent could impact implementation of these programs for agriculture, and the agencies welcome comments on this issue during the public comment period on the proposed rule to ensure that concerns raised by farmers and the agricultural industry are addressed in the agencies' rulemaking.

Question 10: EPA proposed a rule to redefine a "water of the U.S." Is it true that, in looking at costs, EPA did not update 20 year-old studies for inflation? Did EPA analyze each program under the Clean Water Act and whether that program would be expanded with this change and by how much?

Answer: At the time the economic analysis was developed, 2010 permit data was the most current information available. The cost estimate in the economic analysis was based on 2010 dollars, and all cost and benefit information was adjusted accordingly. The EPA analyzed the proposed rule's expected impact to each program under the Clean Water Act. The methodology and findings are documented in "Economic Analysis of Proposed Revised Definition of Waters of the United States," March 2014, which is in the docket for the proposed Waters of the U.S. rule. The agency invites comments on this document as part of the public comment period on the proposed rule and will update the analysis to support the final rule.

Question 11: How long and how much money does it currently take on average to get a nationwide permit? Is it safe to say that increasing the number of waters under federal regulation, especially if you're including ditches, dry streams, and isolated ponds and puddles, will increase the average time it takes to get a permit and will increase the average cost to get a permit?

Answer: Clean Water Act Section 404 permits are issued by the U.S. Army Corps of Engineers, not by EPA, so specific expertise regarding the cost and processing time

for these permits lies with the Corps. EPA and the Corps developed an economic analysis of the expected benefits and costs of the agencies' proposed "Waters of the U.S." rulemaking, which is available at *http://www2.epa.gov/sites/production/files/2014-03/documents/wus_proposed_rule_economic_analysis.pdf.* The agencies believe that the proposed rule will benefit businesses by increasing efficiency in determining coverage of the Clean Water Act.

The agencies' proposed rule does not protect any new types of waters that have not historically been covered under the Clean Water Act. The rule actually proposes to reduce jurisdiction and exclude certain ephemeral and intermittent ditches. "Puddles" have never been jurisdictional and will remain non-jurisdictional under the proposed rule.

Question 12: Can a third party sue me under the Clean Water Act if you have told me my dry streambed is not a "water of the U.S." in the form of a "jurisdictional determination" (JD), but that individual wants it to be?

Answer: A Corps or EPA jurisdictional determination would not be binding on a third party in a citizen suit enforcement action. The jurisdictional determination would likely be considered by the Court, but would not be binding on it.

Question 13: What is the EPA's definition for "significant nexus"?

Answer: The EPA and the U.S. Army Corps of Engineers are proposing a definition of "significant nexus" within their proposed rule to help provide clarity regarding a term described in Supreme Court opinions but not previously defined by the agencies. We believe that providing such a definition will increase consistency and predictability for permit applicants, agencies, and the public, and we invite comments on the proposed definition during the public comment period.

More specifically, the definition for "significant nexus" in the proposed rule developed by EPA and the Army Corps of Engineers is as follows:

> "The term significant nexus means that a water, including wetlands, either alone or in combination with other similarly situated waters in the Region (i.e., the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section), significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Other waters, including wetlands, are similarly situated when they perform similar functions and are located sufficiently close together or sufficiently close to a 'water of the United States' so that they can be evaluated as a single landscape unit with regard to their effect on the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section." See, e.g., 79 Federal Register 22188, 22263 (April 21, 2014). The Federal Register preamble discusses this proposed regulatory definition at Id. pp. 22211-22214.

Question 14: How do the states feel about you taking federal control over "all waters?" Have you left any waters under their control? Have you consulted them?

Answer: The proposed rule does not purport to make all waters jurisdictional, but clarifies those waters that are jurisdictional in a manner consistent with the Clean Water Act (CWA) as interpreted by the U.S. Supreme Court. In fact, under the proposed rule, certain features are clearly stated not to be waters of the U.S. subject to programs under the federal Clean Water Act. State and local governments have well-defined and long-standing relationships in implementing affected CWA programs and these relationships will not be altered by the proposed rule. Forty-six states and the Virgin Islands have been authorized to administer the National Pollutant Discharge Elimination (NPDES) program under Section 402, while two states administer the Section 404 program. This action will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Consistent with the EPA and Corps policy to promote communications between the agencies and state and local governments, and in recognition of the vital role states play in implementation of the CWA, the EPA voluntarily undertook federalism consultation for this effort and met the terms of E.O. 13132 and EPA guidance for implementing the Order. The EPA and the Corps are seeking public comment to determine the limits of these jurisdictional areas. We continue to have discussions and outreach with our state partners.

Question 15: This proposal greatly expands the current definition of "waters of the U.S." under the Clean Water Act, opening them up to permitting requirements for ponds, ditches, and even dry streambeds that only hold water when there is a rainfall event. How do you explain to the agriculture community what the agency is doing?

Answer: The agencies' proposed rule will not expand Clean Water Act (CWA) jurisdiction beyond its historic scope. CWA programs for decades have asserted that ponds, ditches, and ephemeral streams are subject to CWA programs as waters of the U.S. The proposed rule will cover fewer waters than the current regulatory definition, because current regulations have not yet been revised to reflect U.S. Supreme Court decisions in 2001 and 2006 that constrain the scope of waters of the U.S.; that is the purpose of this rulemaking. The EPA and the Corps have been conducting outreach across the country with a variety of stakeholder groups, including the agricultural community. All agricultural exemptions and exclusions from Clean Water Act requirements that have existed for nearly 40 years have been retained in the proposal. In addition, the agencies jointly worked with the U.S. Department of Agriculture to develop an interpretive rule to clarify the Section 404(f)(1)(a) exemption to include 56 specific National Resource Conservation Service conservation practices that protect or improve water quality will not be subject to Clean Water Act dredge and fill permitting requirements. It is important to emphasize that the interpretive rule identifies additional activities considered exempt from permitting under Section 404(f)(1)(A), but does not reduce, in any manner, the scope of agriculture, silviculture, and ranching activities currently exempt from permitting under Section 404(t)(1)(A) including, for example, plowing, seeding, cultivation, minor drainage, etc. Farmers and producers will be able to

undertake the specific conservation practices without notification or permitting by ensuring that practices benefit water quality and are in accordance with Natural Resources Conservation Service standards.

Question 16: Does this rule increase the number of "waters" that could come under federal jurisdiction? Industry, unanimously believes the answer is yes. Doesn't it logically follow that if more waters are jurisdictional, more permits will be required?

Answer: The agencies' proposed rule, if finalized, would result in a narrowing of the scope of Clean Water Act jurisdiction compared with the agencies' historic interpretations and their existing regulations. The proposed rule will cover fewer waters than the current regulatory definition, because current regulations have not been revised to reflect U.S. Supreme Court decisions in 2001 and 2006 that constrain the scope of waters of the U.S. The proposed rule will provide greater consistency, certainty, and predictability nationwide by clarifying where the Clean Water Act applies and also where it doesn't. On a case-by-case basis, the agencies' proposed rule could result in additional permits being required for types of waters whose jurisdictional status has been uncertain and confusing as a result of these Supreme Court decisions. However, by providing clearer definitions of key terms in a regulation, clear categories of waters that are never jurisdictional, the agencies believe the proposed rule will provide certainty to landowners, industry, and other stakeholders and help facilitate the permitting process, while on balance covering fewer waters than the Clean Water Act's historic scope.

Question 17: Administrator, you said the proposal will provide clarity. However, it is 371 pages long. If a landowner wants to know whether waters on his property will require a federal permit, do you think he will be "clear" about that after he reads a 300+ page document? Is it your purpose to write a regulation so broad and vague that EPA is saying that "every water is now under federal jurisdiction?" I do not believe this is the kind of clarity landowners are asking for, or the Commerce Clause of the Constitution and the Clean Water Act allows.

Answer: The Agency is seeking clarity through this proposed rule, of which the rule language is only two pages long. The changes to the regulatory text require additional identical pages due to the numerous places in the Code of Federal Regulations where we are proposing to change the definition of waters of the United States, as the definition will apply to all Clean Water Act programs. The remaining pages in the *Federal Register* are the preamble of the proposed rule. The preamble provides background on why the rule was proposed and also contains an appendix for the scientific support of the proposed rule and an appendix on the legal underpinnings and support. The preamble also solicits specific comments from the public on the proposed rule and presents a number of alternative options for the public to provide input on. The EPA neither intends nor believes that every water is now under federal jurisdiction, nor would the proposed rule have that effect.

Question 18: Last November, the EPA proposed Renewable Fuel Standard targets for 2014 that would blend less fuel than we blended last year, impacting the economy in Nebraska. It does so using an approach that I find to be inconsistent with the law and previous regulations by inserting considerations about fuel delivery infrastructure into the annual target setting process. What steps is EPA taking to fix this proposed rule and respond to the hundreds of thousands of comments submitted for your consideration? When do you expect the final rule to be released?

Answer: Since the 2014 RFS volume proposal was released, the EPA has met with multiple stakeholders to listen to their input on the proposed rule and to solicit any new and relevant data that should be factored into setting the volume standards for 2014. These stakeholders include representatives from the biofuel sector, the agricultural sector, petroleum refiners, environmental groups, and various other organizations and sectors. The EPA also received over 300,000 comments on the 2014 RFS proposal, which we are currently evaluating. We anticipate issuing a final rule before the end of June.

Question 19: EPA announced plans to change the pathway approval process for new biofuels – a definite step in the right direction to mitigate unnecessarily long delays and wait times for new biofuels producers. Unfortunately, whatever positive benefits might come out of this process have been negated by the Agency's simultaneous announcement that new applicants refrain from submitting applications for a 6-month period, until EPA's new guidance is released. Coupled with the EPA's 2014 proposed volume rule under the RFS, and an already slow pathway approval process, this action only further creates unneeded uncertainty.

Question 20: Is it realistic to think that the EPA can get new guidance out in a 6 month period? Will this new process be subject to OMB review?

Answer: As stated in the EPA's March program announcement, these improvements are anticipated to be completed in approximately six months. The EPA is committed to meeting that timeframe and intend to complete all necessary steps -- as required by applicable statutes, regulations and executive orders -- within that timeframe.

Question 21: Why did the EPA include a pause on new applications during this window of time? Have you assessed the impact of this approach on investors and on the innovation pipeline for new biofuels?

Answer: As explained in the March program announcement, the EPA is continuing to review pending petitions that are high priority and petitions for which substantial modeling has already been done. Because we intend to provide new guidance, we have suggested that parties may want to delay their submissions until the new guidance is provided. We understand the importance of this petition process for companies developing new biofuel technologies, and we firmly believe that the long-term performance of the petition process will benefit from our streamlining efforts.

Question 22: Your announcement states that you will be setting priorities for processing while you are working on revisions to your approval process. Please provide the Committee with the list of applications that you will be processing and those that you will not during this period of time.

Answer: The full list of petitions under review is available here: http://www.epa.gov/otaq/fuels/renewablefuels/new-pathways/rfs2-pathways-review.htm . The goal of this improvement process is to enable more timely and efficient decision-making for all petitions. EPA staff have contacted all of the parties with petitions under review to discuss their status. We have explained that review is continuing for high priority petitions (based on the criteria listed in the March program announcement) and pending petitions for which substantial modeling has been done. For other petitions, for example those based on corn ethanol, we have explained that as part of the improvement process we are launching a more automated review process for petitions using previously approved feedstocks and well known production process technologies.

AL 14-001-3336

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510–6175

June 27, 2014

Mr. Barry N. Breen
Principle Deputy Assistant Administrator
Office of Solid Waste and Emergency Response
United States Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Dear Mr. Breen:

Thank you for appearing before the Committee on Environment and Public Works on June 10, 2014, at the hearing entitled, "Protecting Taxpayers and Ensuring Accountability: Faster Superfund Cleanups for Healthier Communities" We appreciate your testimony and we know that your input will prove valuable as we continue our work on this important topic.

Enclosed are questions for you that have been submitted by Senators Booker and Vitter for the hearing record. Please submit your answers to these questions by COB July 11, 2014, to the attention of Colin MacCarthy, Senate Committee on Environment and Public Works, 410 Dirksen Senate Office Building, Washington, DC 20510. In addition, please provide the Committee with a copy of your answers via electronic mail to Colin_MacCarthy@epw.senate.gov. To facilitate the publication of the record, please reproduce the questions with your responses.

Again, thank you for your assistance. Please contact Kim Smaczniak of the Majority Staff at (202) 224-8832, or Dimitri Karakitsos of the Minority Staff at (202) 224-6176 with any questions you may have. We look forward to reviewing your answers.

Sincerely,

Barbara Boxer
Chairman

David Vitter
Ranking Member

Environment and Public Works Committee Hearing
June 10, 2014
Follow-Up Questions for Written Submission

Questions for Breen

Questions from:

Senator Cory A. Booker

1. Mr. Breen as you know, climate change is upon us. It is not some problem of the distant future, but is a crisis in the here and now. What this means in New Jersey, unfortunately, is that we know we have to expect more flooding – and in some places, a lot more flooding. Some Superfund sites that were previously not in flood zones now are, or soon will be. What is the EPA doing to address the threat of flooding to superfund sites, where at some sites there will now be an even greater danger of contamination from one property spreading to others, and increased risk of groundwater contamination?

2. In May of 2014, EPA announced a remediation plan for the lower Passaic River. Can you describe the consultation with industry, stakeholders and communities along the lower Passaic that took place in advance of this plan being selected? How many years did the EPA study of this issue take?

3. How is this plan the best option, in EPA's analysis, to protect public health and the environment?

4. Did EPA fully consider alternative remediation plans before making its decision?

Environment and Public Works Committee Hearing
June 10, 2014
Follow-Up Questions for Written Submission

Questions for Breen

Questions from:

Senator David Vitter

1. In addition to the Corps' current authority to remove contaminated sediments outside of federal navigation channels, the Water Resources Reform and Development Act authorized the use of the Harbor Maintenance Trust Fund to pay for dredging and disposal of legacy-contaminated sediments in and adjacent to certain eligible federal navigation channels. Is EPA aware of this new provision? It has come to my attention that EPA seems to be applying a different construct on who is responsible for paying for the dredging and disposal of contaminated sediments in and adjacent to federal navigational channels.

2. I am concerned that EPA may be blurring the lines between its regulation of Superfund clean-up responsibilities and the Corps of Engineers' navigational dredging responsibilities. There are many sites across the country where the Agency is requiring some amount of dredging to clean up past contamination of river sediments - usually to remove toxic hotspots. However, the EPA has not required responsible parties as part of a Superfund cleanup to pay for both the dredging costs required for removal and treatment or containment of contaminated sediments and the dredging costs required for navigation maintenance until recently at the Lower Passaic site in New Jersey. I'm concerned that EPA is proposing that the responsible parties also pay for all the costs of dredging the Lower Passaic River federal navigation channel to up to 30-feet to accommodate anticipated future commercial vessel traffic. I understand that responsible parties are responsible for the added costs of removing, treating, and containing contaminated sediments above the standard federal costs of maintaining commercial navigation channels, but requiring responsible parties to also pay for the standard navigation dredging costs goes beyond Superfund and is a responsibility of the Corps of Engineers. Additionally, I understand that the EPA proposes that the responsible parties pay for dredging a portion of the channel that will be maintained only for recreational vessel use, not for commercial vessel use. Under the Corps of Engineers' authorities, navigation channels for only recreational use would usually be maintained by the non-federal government sponsor, such as a State, county, or city.

    a. By proposing this remedy are you telling me that all of the proposed dredging of the Lower Passaic River is necessary to protect public health and the environment and none of it is required for commercial and recreational vessel navigation purposes?

3. It has come to my attention that EPA is not applying its own sediment guidance in selecting remedies consistently across the nation. For example, at the Lower Duwamish site in Washington, the EPA selected a remedy that uses adaptive management and targets hot spot removals along the river rather than dredging the entire river. Similarly, the Fox River in Wisconsin is using adaptive management as are many other sites. The outlier seems to be the Lower Passaic River which would dredge over 4.3 million cubic yards of material and cap the river rather than target hot spots. What is the purpose of the sediment guidance if EPA is not applying it consistently? When will EPA begin applying the guidance consistently?

4. What are the most important factors in selecting a remedy? For example, if two remedies are equally protective, will EPA select the lower cost remedy?

5. What role does timing of a cleanup play? For example, if a site can be cleaned up faster, is that preferred over a remedy that will take more time?

6. How does EPA estimate the timing of a cleanup? For example, at one site EPA estimated that it will take five years to dredge 4.2 million cubic yards, but at another site EPA estimated that dredging 3.9 million cubic yards will take 42 years. How is it possible to have two estimates so far apart?

7. When EPA is formulating the costs of its remedies, does it factor in the costs and inconvenience associated with its preferred remedies? For instance, in the case of the Lower Passaic River, it's my understanding there is a large amount of commerce and traffic as well as the 16 bridges that cross the river. What is the cost of inconvenience and traffic when those bridges are raised to allow for your tall dredging boats? Has that been factored in and are the communities aware of what awaits them?

8. It has come to my attention that buried in Appendix G of EPA's Lower Passaic cleanup plan is a list of possible hazardous waste sites that the dredged material – 4.3 million cubic yards – may be disposed. I was surprised to learn that one of the sites listed to receive this toxic material is in Louisiana. Why did the EPA decide to ship this toxic dredged material out of state rather than manage it in state or in a CAD as they do at many other dredging operations?

9. What role does EPA headquarters play in selecting a remedy – particularly at complicated sites with large cleanup costs? Does headquarters or the region select the remedy? Does headquarters have a veto over a regional decision and if so has it ever exercised this role. Does headquarters worry about consistency across the nation? If so, how do you ensure consistency?

10. There are lots of instances where major parties at Superfund sites are not at the table. EPA typically focuses on cooperating parties but doesn't often bring other parties to the table. What is EPA's plan to bring all major parties to the table?

11. The EPA seems to pick and choose who it goes after to seek the financial costs for a clean-up. As you look at your proposed $1.7 billion clean-up of the Lower Passaic River, can you assure this Committee that all parties who have any role in polluting the River – including local municipalities – have been included in your responsibility?

12. How much of your appropriated funds are not used for core cleanup projects?

13. During the hearing, both you and the Chairman said you are committed to expeditious clean-up of Superfund sites to improve the health and welfare of constituents living along the impact areas. We all share that goal. But we know throughout the history of Superfund that it is litigation prone with cooperating parties seeking financial support from other responsible parties – all of which prolongs the ultimate remedy and actual clean-up. Even in the Chairman's home State of New Jersey, the EPA Proposal for the clean-up of the Lower Passaic River is not likely to see real clean-up activity for years. Please share with this Committee how you evaluate alternative clean-up proposals that can be equally protective of the environment, may cost less to implement, and which may result in a consensus approach by the responsible parties negating any litigation delay.

14. If there is a shortage of money for the Superfund program, why does the EPA redirect major parts of its Superfund program appropriation to activities not immediately concerned with the clean-up of Superfund sites? What administrative costs can EPA cut back on or outright reduce?

15. If the Superfund tax were re-imposed on U.S. manufacturers and businesses then the burden would fall upon goods, made from certain chemicals that are produced in the U.S. So imported finished products would not bear the tax because the taxable products are already incorporated into the finished products. So finished products imported into the U.S. would be less expensive to produce and would have a clear market advantage. What effect would this have on U.S. jobs?

16. What are EPA's estimated construction completions for 2015, 2016, 2017, and 2018? What are EPA's estimated administrative costs for those respective years as well?

17. In addition to the Corps' current authority to remove contaminated sediments outside of federal navigation channels, the Water Resources Reform and Development Act authorized the use of the Harbor Maintenance Trust Fund to pay for dredging and disposal of legacy-contaminated sediments in and adjacent to certain eligible federal navigation channels. Is EPA aware of this new provision? It has come to my attention that EPA seems to be applying a different construct on who is responsible for paying for the dredging and disposal of contaminated sediments in and adjacent to federal navigational channels.

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concerned with the clean-up of Superfund sites? What administrative costs can EPA cut back on or outright reduce?

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 13 2014

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Barbara Boxer
Chairman
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Chairman Boxer:

Thank you for the opportunity to respond to the Questions for the Record following the June 10, 2014, hearing entitled "Protecting Taxpayers and ensuring Accountability: Faster Superfund Cleanups for Healthier Communities." The responses to the questions are enclosed. I hope that this information is helpful to you and the members of the Committee.

If you have further questions, please contact me or your staff may contact Carolyn Levine in my office at levine.carolyn@epa.gov or (202) 564-1859.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

U.S. ENVIRONMENTAL PROTECTION AGENCY
RESPONSES TO QUESTIONS FOR THE RECORD
JUNE 10, 2014 HEARING
BEFORE THE OVERSIGHT SUBCOMMITTEE
ENVIRONMENT AND PUBLIC WORKS COMMITTEE
UNITED STATES SENATE

Questions for Barry Breen:

Senator Cory A. Booker

1. **Mr. Breen as you know, climate change is upon us. It is not some problem of the distant future, but is a crisis in the here and now. What this means in New Jersey, unfortunately, is that we know we have to expect more flooding - and in some places, a lot more flooding. Some Superfund sites that were previously not in flood zones now are, or soon will be. What is the EPA doing to address the threat of flooding to superfund sites, where at some sites there will now be an even greater danger of contamination from one property spreading to others, and increased risk of groundwater contamination?**

ANSWER: As described in the EPA's 2013 draft Climate Change Adaptation Plan, the agency's focus on climate adaptation is part of a larger federal effort "to increase the nation's adaptive capacity and promote a healthy prosperous nation that is resilient to a changing climate." The EPA's Office of Solid Waste and Emergency Response (OSWER) in 2013, released a draft Climate Change Adaptation Implementation Plan, which includes actions specific to the Superfund Program. OSWER's Office of Superfund Remediation and Technology Innovation is collaborating with other national program and regional offices to implement the climate change adaptation plan designed to ensure the resilience of remedies to climate change impacts. The following are key actions being implemented under Superfund to better adapt to climate change:

- Expand and share a vulnerability screening protocol for regional use to better identify site remedies where performance may be impacted by climate change.
- Develop adaptation fact sheets for site remedies most likely to be affected by climate change to help decision-makers identify potential vulnerabilities and select adaptation measures. To date, we have completed fact sheets on 1) groundwater treatment systems, and 2) landfills and containment remedies. The fact sheets are available at http://www.epa.gov/superfund/climatechange/.
- Identify existing Superfund program processes (remedial investigation/feasibility study, record of decision, remedial design/remedial action, five-year reviews, etc.) for potential implementation of climate change adaptation protocols to help ensure continuing resilience of current and future site remedies. For example, Region 2 has developed a template for Remedial Project Managers (RPMs) to use in the Superfund site five-year review process to identify and assess climate change vulnerabilities.

- Deliver training to the EPA RPMs and provide web-based training for other stakeholders. Superfund provided comprehensive training on adaptation strategies to RPMs at the recent National Association of Remedial Project Managers training in Atlanta (June 2014).

When selecting and implementing response actions at Superfund sites, the EPA is aware of the increased potential for inundation from adjacent water bodies. The selected response actions must be able to withstand such inundation and remain effective.

2. **In May of 2014, EPA announced a remediation plan for the lower Passaic River. Can you describe the consultation with industry, stakeholders and communities along the lower Passaic that took place in advance of this plan being selected? How many years did the EPA study of this issue take?**

ANSWER: The Focused Feasibility Study (FFS) that supports the Proposed Plan for the Lower 8 Miles of the Lower Passaic River, issued by EPA Region 2 on April 11, 2014, was initiated in 2006. The FFS is in addition to the remedial investigation and feasibility study (RI/FS) for the 17 miles of the Lower Passaic River. The RI/FS began with a six-mile study in 1995, which was expanded to a 17-mile study in 2003. In 2007, a group of potentially responsible parties (PRPs) known as the Cooperating Parties Group (CPG) took over the 17-mile RI/FS from the EPA, performing with EPA oversight. The EPA has incorporated data from the ongoing 17-mile RI/FS into the FFS, and as that work continues, additional results will be integrated into the design of the Lower 8 Mile cleanup.

The EPA has worked closely with the CPG and another group of parties, formerly but no longer affiliated with the CPG, known as the Tierra/Maxus/Occidental (TMO) group. The EPA also works closely with many other stakeholders including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the New Jersey Department of Environmental Protection, local governments in the affected area, non-governmental organizations, academic institutions, industry groups and private citizens. In 2009, the EPA facilitated formation of a Community Advisory Group (CAG); its membership includes a wide range of stakeholders and its meetings are open to the public. Since its formation, the CAG has been meeting monthly, and the EPA regularly attends these meetings.

3. **How is this plan the best option, in EPA's analysis, to protect public health and the environment?**

ANSWER: The EPA's Proposed Plan for the remediation of the Lower 8 Miles of the Lower Passaic River, issued on April 11, 2014, explains in detail why the EPA considers the proposed remedial alternative to be the most appropriate selection pursuant to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan (NCP) (40 CFR Sec. 300.430), which is the EPA regulation promulgated pursuant to CERCLA that also governs remedy selection. In the agency's judgement, the alternative proposed for selection best satisfies and balances the nine criteria for remedy selection set out in the NCP. The agency's Proposed Plan is currently undergoing a 120-day formal public comment period that will close on August 20, 2014.

The EPA has held three formal public meetings regarding the Proposed Plan. The agency will carefully consider all comments received orally at the public meetings and in writing throughout the comment period before making a final remedy selection. The EPA's final remedy selection will be memorialized in a Record of Decision (ROD) and will include the "Responsiveness Summary" section responding to the comments received.

4. Did EPA fully consider alternative remediation plans before making its decision?

ANSWER: Yes, the EPA fully and carefully considered several alternative remediation plans before issuing the Proposed Plan on April 11, 2014. These alternatives are described in detail in the FFS and the Proposed Plan itself. The FFS and the Proposed Plan are available on the EPA's website: www.epa.gov/Region2/passaicriver. The EPA's reasons for selecting the proposed alternative, rather than one of the other alternatives, are described in the Proposed Plan.

Senator David Vitter

1. **In addition to the Corps' current authority to remove contaminated sediments outside of federal navigation channels, the Water Resources Reform and Development Act authorized the use of the Harbor Maintenance Trust Fund to pay for dredging and disposal of legacy-contaminated sediments in and adjacent to certain eligible federal navigation channels. Is EPA aware of this new provision? It has come to my attention that EPA seems to be applying a different construct on who is responsible for paying for the dredging and disposal of contaminated sediments in and adjacent to federal navigational channels.**

   ANSWER: The EPA is aware of the statutory provision in the Water Resources Reform and Development Act. In the case of the Lower Passaic River, we understand that maintenance dredging of the navigation channel has not occurred for several decades. Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), parties that meet the criteria in Section 107(a) may be held responsible for payment of the costs of response to a release or threatened release of a hazardous substance.

   The EPA has notified more than 70 parties that they are Potentially Responsible Parties (PRPs) for the Lower Passaic River portion of the Diamond Alkali Superfund site. Groups of these PRPs – both the Cooperating Parties Group (CPG) and Tierra/Maxus/Occidental (TMO) – have carried out extensive work under CERCLA, and with EPA oversight, including the remedial investigation and feasibility study (RI/FS) and two significant removal actions. The Proposed Plan for remediation of the Lower 8 Miles of the Lower Passaic River issued by the EPA on April 11, 2014, includes the dredging of contaminated sediment that has accumulated in the lower 8.3 miles of the river, including in the lower 2.2 miles of the federally authorized navigation channel. Hazardous substances of the types attributable to the PRPs are found in these sediments. The costs of removing contaminated sediment from the navigation channel are costs for which CERCLA responsible parties are liable.

   Under CERCLA and the National Contingency Plan (NCP) (40 CFR Sec. 300.430), remedial actions are to be consistent with the reasonably anticipated future use of the site or area being remediated. Commercial navigation is a reasonably anticipated future use of the lower 2.2 miles of the federally authorized navigation channel in the Passaic River, according to a 2010 analysis carried out by the Corps in consultation with the commercial users.

2. **I am concerned that EPA may be blurring the lines between its regulation of Superfund clean-up responsibilities and the Corps of Engineers' navigational dredging responsibilities. There are many sites across the country where the Agency is requiring some amount of dredging to clean up past contamination of river sediments - usually to remove toxic hotspots. However, the EPA has not required responsible parties as part of a Superfund cleanup to pay for both the dredging costs required for removal and treatment or containment of contaminated sediments and the dredging costs required for navigation maintenance until recently at the Lower Passaic site in New Jersey. I'm concerned that EPA is proposing that the responsible parties also pay for all the costs of**

dredging the Lower Passaic River federal navigation channel to up to 30-feet to accommodate anticipated future commercial vessel traffic. I understand that responsible parties are responsible for the added costs of removing, treating, and containing contaminated sediments above the standard federal costs of maintaining commercial navigation channels, but requiring responsible parties to also pay for the standard navigation dredging costs goes beyond Superfund and is a responsibility of the Corps of Engineers. Additionally, I understand that the EPA proposes that the responsible parties pay for dredging a portion of the channel that will be maintained only for recreational vessel use, not for commercial vessel use. Under the Corps of Engineers' authorities, navigation channels for only recreational use would usually be maintained by the non-federal government sponsor, such as a State, county, or city.

a. **By proposing this remedy are you telling me that all of the proposed dredging of the Lower Passaic River is necessary to protect public health and the environment and none of it is required for commercial and recreational vessel navigation purposes?**

ANSWER: As explained above, under CERCLA and the NCP, a remedial response action is to be consistent with the reasonably anticipated future use of the affected site or area. In the case of the Lower Passaic River, the Army Corps of Engineers' berth-by-berth analysis and survey of commercial users showed clear future waterway use objectives in the lower 2.2 miles of the river, documented in the Corps' 2010 report, establishing commercial navigation as the current and reasonably anticipated future use of the lower 2.2 miles of the river. The Corps also provided the EPA with information about the minimum depth of the navigation channel that would accommodate the reasonably anticipated future commercial use. Although the federally authorized depth of the channel is 30 feet throughout these 2.2 miles, the Corps' analysis shows that shallower depths in portions of that stretch would accommodate the reasonably anticipated future use. Specifically, from river mile 1.2 to 1.7, a depth of 25 feet would suffice; and from river mile 1.7 to 2.2, a depth of 20 feet would suffice. All the accumulated sediment in the navigation channel in these lower 2.2 miles is contaminated with hazardous substances at levels that present an unacceptable risk.

The EPA has therefore proposed that the navigation channel be dredged to the depths specified by the Corps' analysis as part of the CERCLA remedy. This is consistent with what the EPA has determined at other sites where contaminated sediment exceeding acceptable risk levels is found in authorized navigation channels where navigation remains the reasonably anticipated future use. For example, in the Hudson River PCB Superfund site, where the triggering criteria specified in the ROD are met within the footprint of the Hudson River navigation channel, dredging of those sediments is required to a sufficient depth to allow the channel thereafter to be maintained without the extra cost and difficulty of removing and managing contaminated sediment. The EPA's Proposed Plan for the remediation of the Lower 8 Miles of the Lower Passaic River applies the same approach.

3. **It has come to my attention that EPA is not applying its own sediment guidance in selecting remedies consistently across the nation. For example, at the Lower Duwamish site in Washington, the EPA selected a remedy that uses adaptive management and**

targets hot spot removals along the river rather than dredging the entire river. Similarly, the Fox River in Wisconsin is using adaptive management as are many other sites. The outlier seems to be the Lower Passaic River which would dredge over 4.3 million cubic yards of material and cap the river rather than target hot spots. What is the purpose of the sediment guidance if EPA is not applying it consistently? When will EPA begin applying the guidance consistently?

ANSWER: The EPA takes the sediment guidance into consideration when evaluating the most appropriate remedy for the environmental conditions at sites with contaminated sediment. Where information and understanding about an aquatic system is limited, including understanding of the fate and transport of contamination within the system, adaptive management in the manner suggested by this question may be appropriate, allowing response action to begin while continuing to gather data and acquire a better understanding of the system. However, in the case of the Passaic River, the EPA and the PRPs have acquired extensive data over more than two decades. Highly sophisticated computer models have been developed and subjected to external, independent peer review. These models describe the hydrodynamics of the river, including tidal influence and the influence of storm events; sediment transport within the system; and contaminant fate and transport with the system. These models were used by the EPA to make predictions of future conditions under various remedial alternatives including the "no action" alternative. The EPA has already overseen two removals of contaminated sediments in the river.

However, based on the EPA's understanding of the river, and informed by these models, the EPA has concluded that "hot spot" removal in the Lower 8 Miles of the Lower Passaic River would not reduce risk from contaminated sediments to a sufficient degree; in the EPA's view only bank-to-bank remediation in the Lower 8 Miles would achieve an acceptable degree of risk reduction. This analysis is described in detail in the FFS and the EPA's Proposed Plan for the remediation of the Lower 8 Miles of the Lower Passaic River. As noted in the Proposed Plan, however, the agency will continue to utilize adaptive management going forward with the remediation of the Passaic River, as we have done in other aquatic sites.

4. **What are the most important factors in selecting a remedy? For example, if two remedies are equally protective, will EPA select the lower cost remedy?**

ANSWER: The NCP establishes a framework of nine criteria for evaluating remedies. These criteria address the statutory requirements and additional technical and policy considerations that are important for selecting remedial actions. The two most important criteria are the two "threshold" criteria: 1) overall protection of human health and the environment and 2) compliance with applicable or relevant and appropriate requirements (ARARs). Among the alternatives that meet the threshold criteria, the selection process considers seven additional criteria: long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; cost; state acceptance; and community acceptance. In considering and weighing all of these criteria, the lowest cost remedy may or may not be selected.

5. **What role does timing of a cleanup play? For example, if a site can be cleaned up faster, is that preferred over a remedy that will take more time?**

   ANSWER: "Time until protection is achieved" is one element of the "short-term effectiveness" criterion used to evaluate remedial alternatives.

6. **How does EPA estimate the timing of a cleanup? For example, at one site EPA estimated that it will take five years to dredge 4.2 million cubic yards, but at another site EPA estimated that dredging 3.9 million cubic yards will take 42 years. How is it possible to have two estimates so far apart?**

   ANSWER: The EPA assumes the 4.2 million cubic yard example refers to the Lower Passaic River, where the Proposed Plan calls for dredging 4.3 million cubic yards with an assumed construction period of five years. Each dredging site is different, but this assumption is informed by experience at other sites including the Hudson River PCB site and the Onondaga Lake site. We assume multiple dredges working 24 hours per day, six days per week, and 40 weeks per year. This weekly schedule is consistent with what has been done at the Hudson River PCB site and elsewhere. The number of weeks per year during which dredging operations can be assumed to continue is based on multiple factors including typical weather conditions and infrastructure limitations (e.g., at the Hudson River PCB site barges must move through locks in a canal system, which only operate about six months per year).

7. **When EPA is formulating the costs of its remedies, does it factor in the costs and inconvenience associated with its preferred remedies? For instance, in the case of the Lower Passaic River, it's my understanding there is a large amount of commerce and traffic as well as the 16 bridges that cross the river. What is the cost of inconvenience and traffic when those bridges are raised to allow for your tall dredging boats? Has that been factored in and are the communities aware of what awaits them?**

   ANSWER: The EPA considers the costs and inconvenience associated with the various alternatives in the remedy selection process. The NCP sets out nine criteria that EPA considers in remedy selection. One of these addresses "short term impacts" which includes assessment of risks and inconvenience associated with the actual implementation or construction of each evaluated alternative. The FFS and Proposed Plan for the remediation of the Lower 8 Miles of the Lower Passaic River address the short term impacts associated with each alternative considered. The EPA will also consider any comments about short term impacts, including the impacts of bridge openings that we may receive during the current public comment period.

8. **It has come to my attention that buried in Appendix G of EPA's Lower Passaic cleanup plan is a list of possible hazardous waste sites that the dredged material – 4.3 million cubic yards – may be disposed. I was surprised to learn that one of the sites listed to receive this toxic material is in Louisiana. Why did the EPA decide to ship this toxic dredged material out of state rather than manage it in state or in a CAD as they do at many other dredging operations?**

ANSWER: The EPA's Proposed Plan for the remediation of the Lower 8 Miles of the Lower Passaic River, issued on April 11, 2014, calls for removal of approximately 4.3 million cubic yards of contaminated sediment. The Proposed Plan provides that the dredged sediment would be dewatered at a facility to be sited near the river, and the dewatered sediment then would be sent to properly licensed and permitted disposal facilities. No facilities licensed to handle hazardous waste exist within the State of New Jersey. A number of such facilities exist elsewhere, including but not limited to Louisiana. The EPA will not select the specific facility to be used for disposal of the dewatered sediment; that choice will be made by the PRPs who the EPA expects will carry out the remedy (assuming that off-site disposal is the finally selected alternative in the ROD).

The facilities listed in Appendix G of the FFS were provided to demonstrate that there is sufficient capacity at existing hazardous waste disposal facilities for the various remedial alternatives to be technically feasible and for cost estimation purposes (two of the nine criteria that the EPA considers in remedy selection). The EPA's reasons for selecting off-site disposal, rather than disposal in a confined aquatic disposal (CAD) cell, are set forth in detail in the Proposed Plan. While CAD cells are used for disposal of wastes from some other Superfund contaminated sediment sites, off-site disposal is also a commonly selected alternative including, for example, the Hudson River PCB site, the Gowanus Canal site, and the General Motors/Massena site.

9. **What role does EPA headquarters play in selecting a remedy – particularly at complicated sites with large cleanup costs? Does headquarters or the region select the remedy? Does headquarters have a veto over a regional decision and if so has it ever exercised this role. Does headquarters worry about consistency across the nation? If so, how do you ensure consistency?**

ANSWER: EPA headquarters develops the national strategy, programs, technical policies, regulations and guidelines for the cleanup of Superfund sites. Regional Offices have the responsibility for implementation of site activities and are specifically delegated remedy selection authority with certain limitations and references to national regulations, directives, policies and guidance. Where needed, EPA headquarters may be involved further in selecting a particular remedy.

The EPA believes that consistent application of national policy and guidance is an important means by which we ensure the reasonableness, predictability, and cost-effectiveness of Superfund decisions. Recognizing that there is considerable flexibility in the NCP and related guidance to make each decision based on its merits and site-specific circumstances, EPA headquarters review and consultation helps ensure that national remedy selection policies and procedures are being implemented in a reasonable and appropriately consistent manner.

10. **There are lots of instances where major parties at Superfund sites are not at the table. EPA typically focuses on cooperating parties but doesn't often bring other parties to the table. What is EPA's plan to bring all major parties to the table?**

ANSWER: The EPA's general policy is to identify parties as PRPs when the agency has evidence that they are viable and liable – i.e., that they meet the criteria in Section 107(a) of CERCLA. In the case of the Lower Passaic River, the EPA has notified more than 70 parties that the agency considers to be PRPs, and anticipates that additional parties may be notified in the future.

EPA Region 2, in particular, has for nearly 30 years, successfully applied a policy of settlement incentives and disincentives for non-settlors. It is the Region's explicit goal and intention to have all PRPs participate at an appropriate level in carrying the burden of the costs of remediation. The EPA will use, as appropriate, the various enforcement tools provided by Congress in CERCLA to effectuate this goal.

11. **The EPA seems to pick and choose who it goes after to seek the financial costs for a clean-up. As you look at your proposed $1.7 billion clean-up of the Lower Passaic River, can you assure this Committee that all parties who have any role in polluting the River – including local municipalities – have been included in your responsibility?**

ANSWER: As explained in the response to Question 10, it is the EPA's general policy to identify viable and liable PRPs, and EPA Region 2's explicit policy to identify all responsible parties at a Superfund site and to use our enforcement tools to ensure that as many as possible participate in an appropriate way to share the financial burden of a cleanup. To date, the EPA has not notified any municipal entities that they are potentially responsible for the Passaic River portion of the Diamond Alkali Superfund site. The agency will continue to assess the potential liability of municipal and non-municipal entities and take appropriate action to ensure that those with legal responsibility are included in the enforcement process.

12. **How much of your appropriated funds are not used for core cleanup projects?**

ANSWER: Many important Superfund program functions work together before a site is ready for remedial construction/post-construction activities. For example, for the FY 2014 Enacted Budget, the Superfund appropriation was nearly $1.1 billion.

These funds are divided as follows:

- $500 million (46%) for the Superfund remedial program, which supports not only construction/post-construction cleanup work, but also site assessment, pre-construction activities, oversight of responsible parties, state and community involvement, and remedial policy development activities;
- $188 million (17%) for emergency response, preparedness and radiation protection which supports removal program cleanup work;
- $177 million (16%) for enforcement which provides the basis for cleanup work funded by responsible parties (including cost recovery financial system support);
- $138 million (13%) for management and support which supports activities ranging from facilities and human resources management, to information technology and

communication services, to advising on Superfund legal issues, to managing the Agency's financial management system, to acquisition management;

- $36 million (3%) for homeland security to support preparedness and response programs;
- $21 million (2%) for the Superfund federal facilities program which supports the EPA personnel who oversee cleanups at contaminated federal facilities;
- $19 million (2%) for research and development related to cleanup technologies (Science and Technology (S&T) transfer specifically appropriated);
- $10 million (1%) for Inspector General (IG) activities related to oversight of the EPA Superfund cleanup program efficiency and effectiveness (IG transfer specifically appropriated).

13. During the hearing, both you and the Chairman said you are committed to expeditious clean-up of Superfund sites to improve the health and welfare of constituents living along the impact areas. We all share that goal. But we know throughout the history of Superfund that it is litigation prone with cooperating parties seeking financial support from other responsible parties – all of which prolongs the ultimate remedy and actual clean-up. Even in the Chairman's home State of New Jersey, the EPA Proposal for the clean-up of the Lower Passaic River is not likely to see real clean-up activity for years. Please share with this Committee how you evaluate alternative clean-up proposals that can be equally protective of the environment, may cost less to implement, and which may result in a consensus approach by the responsible parties negating any litigation delay.

ANSWER: The NCP, which is the EPA regulation promulgated pursuant to CERCLA, establishes a remedy selection framework that reflects the principal requirements of CERCLA Section 121. The EPA developed nine criteria for evaluating remedial alternatives to ensure that multiple considerations are factored into remedy selection decisions. These criteria are derived from statutory requirements as well as technical and policy considerations that have proven to be important for selecting among remedial alternatives.

The nine criteria analysis found in 40 CFR Sec. 300.430, comprises two steps: an individual evaluation of each alternative with respect to each criterion; and a comparison of options to determine the relative performance of the alternatives and identify the relative advantages and disadvantages among them. The nine criteria include: protection of human health and the environment, compliance with applicable or relevant and appropriate federal and state cleanup requirements (ARARs), long-term effectiveness and permanence, use of treatment to reduce toxicity, mobility or volume, short-term effectiveness, remedy implementability, cost, state acceptance, and community acceptance.

Regarding litigation between the EPA and PRPs, or among PRPs, the agency has statutory tools to help prevent significant delays in implementing a selected remedy. For example, CERCLA provides that where a consensual agreement for remedy implementation cannot timely be secured, the agency may issue a unilateral administrative order requiring responsible parties to carry out the remedy; and CERCLA further provides that there may be no pre-enforcement judicial review of an EPA remedy selection or of a unilateral

administrative order issued by the EPA. While the EPA appreciates work done by cooperative responsible parties and considers input from all interested parties during the formal public comment period on proposed remedies, the agency uses the nine criteria discussed above and does not consider the threat of litigation delays in the remedy selection process.

14. If there is a shortage of money for the Superfund program, why does the EPA redirect major parts of its Superfund program appropriation to activities not immediately concerned with the clean-up of Superfund sites? What administrative costs can EPA cut back on or outright reduce?

ANSWER: As explained in response to Question 12, the Superfund appropriation supports numerous important functions in addition to remedial construction/post-construction activities. These functions include, but are not limited to: immediately responding to hazardous releases, identifying sources of contamination that threaten communities and the environment, supporting homeland security preparedness efforts, recovering response costs from responsible parties and obtaining commitments to conduct cleanups, encouraging cleanups and providing technical assistance at non-NPL sites, providing oversight of other federal agency cleanup efforts, engaging and providing support to state and community partners, promoting reuse of contaminated and formerly contaminated properties, providing transparency and accountability in the use of resources and representing accomplishments, managing the appropriate accounting of more than 950 site specific special accounts, creating jobs, and maintaining high acquisition standards that protect government resources. Congress additionally requires that a certain portion of the appropriation be directly transferred to Inspector General and Science and Technology functions. The agency must balance its use of resources to find the best outcomes to meet all of these expectations.

The EPA is continually seeking to improve the efficiency of it operations. For example, in 2012, the agency completed a comprehensive *National Strategy to Expand Optimization Practices from Site Assessment to Site Completion* (Strategy). This Strategy institutes changes to Superfund remedial program business processes to take advantage of newer tools and strategies that promote more effective and efficient cleanups. It lays out several objectives to achieve verifiably protective site cleanups faster, cleaner, greener and cheaper using techniques throughout the life-cycle of site cleanup, including site evaluation, construction and operation and maintenance. As part of this Strategy, the EPA expects regions to systematically apply optimization concepts throughout all phases of the remedial pipeline as a normal business practice.

Another example is the EPA's Superfund Remedial Program Review (SRPR) effort. The agency undertook this review as a follow-on to the earlier Integrated Cleanup Initiative and in recognition of the need to continue to critically evaluate program resources and cleanup processes to minimize impacts to the Superfund remedial program's effectiveness in light of budget constraints, and workforce and technology changes. The SPPR's Action Plan was released in November 2013 outlining short and long term cleanup and program management activities. Since that time, the Groundwater Remedy Completion Strategy has been released

and work on a new acquisition framework is underway. Many of the activities (35 of the 49 actions) are already underway.

15. **If the Superfund tax were re-imposed on U.S. manufacturers and businesses then the burden would fall upon goods, made from certain chemicals that are produced in the U.S. So imported finished products would not bear the tax because the taxable products are already incorporated into the finished products. So finished products imported into the U.S. would be less expensive to produce and would have a clear market advantage. What effect would this have on U.S. jobs?**

ANSWER: A 1994 study sponsored by the EPA investigated the economic impact of the Superfund taxes by calculating the maximum potential effect of each tax on prices or profits.[1] These maximum impacts were all found to be relatively small, indicating that the taxes have only minor economic effects. Using the same methods with current economic data, EPA found that the conclusions of the 1994 study are supported. Furthermore, since the petroleum and chemical taxes have not been updated to reflect real dollars, their economic impact may actually decrease.

Relative to consumer demand for other products, the demand for oil has been fairly unresponsive to price changes. Regarding the petroleum tax, if the entire tax is passed on to consumers, the estimated impact is less than a half penny per gallon increase in gas prices. Such an increase in gas prices would represent only a 0.154% increase to the current average retail price of gasoline of $3.44 per gallon.[2]

Current data suggest that the taxes on chemicals should have only minor economic impacts. These taxes were originally calculated as the *lower* of two figures: (1) 2% of the estimated wholesale price or (2) $4.87 per ton for organic chemicals and $4.45 per ton for inorganic chemicals. Current data indicate that the majority of the chemical prices have increased considerably since the tax was last in operation, with the producer price index of chemicals (from the U.S. Bureau of Labor Statistics) increasing by 168% since 1994.[3] On the other hand, the Superfund taxes will not be corrected for inflation. This should significantly reduce, below 2%, the potential economic impact of the taxes on chemicals. Regarding the international marketplace, the proposed taxes will apply equally to imported chemicals as well as domestic. Thus, it is unlikely that these taxes would cause any change in a manufacturer's or an industry's mix of domestic and imported chemical substances.[4]

Finally, the Corporate Environmental Tax of 0.12% is imposed on firms with alternative minimum taxable income (AMTI) exceeding $2 million. When it last expired, 89% of the tax was paid by firms with assets greater than $250 million. The 1994 study found that the

[1] "Economic Impacts of Superfund Taxes," Prepared by Industrial Economics, Inc, for the Office of Policy Analysis, EPA (1994).
[2] This calculation is based on the average 2013 weekly average US conventional retail price from the Energy Information Administration.
[3] "Economic Impacts of Superfund Taxes," Prepared by Industrial Economics, Inc, for the Office of Policy Analysis, EPA (1994).

maximum estimated impact on the prices charged by affected firms did not exceed one percent in any of the major industrial categories, and was 0.09 percent across all industries.[5] Since the tax only targets AMTI over a threshold, most small businesses will not have to pay. Large businesses that are taxed will only pay a very small fraction of AMTI. Thus, the corporate tax should have only minor economic impacts.

16. What are EPA's estimated construction completions for 2015, 2016, 2017, and 2018?

ANSWER: As of June 30, 2014, the cumulative total of sites that have achieved construction complete is 1,158. In FY 2015, the EPA goal is to achieve site-wide construction completion at 13 sites, including federal facility-lead sites. Construction completion target estimates for FY 2016, FY 2017 and FY 2018 have not been estimated at this time as targets are determined each year based upon available funding and progress of remedial activities within the Superfund program pipeline.

17. What are EPA's estimated administrative costs for those respective years as well?

ANSWER: The EPA does not have a specific definition for administrative costs, and the agency believes that all of the costs incurred under the Superfund appropriation have a direct or indirect impact on the agency's ability to carry out its Superfund mission. However, there are numerous activities that are captured in the broad category of a management and support function that are funded through the Superfund appropriation. These activities range from facilities and human resources management to the provision of information technology and communication services to advising on programmatic Superfund legal issues to managing the Agency's financial system to acquisition management. The resources allocated to these types of activities has declined by more than $20 million since 2011. As a percentage of the entire Superfund appropriation, the budget for these activities has hovered between 13% and 14%. The President's request for FY 2015 for these activities is $164 million. Estimates for future year budget requests have not been developed.

Questions for Judith Enck:

Senator Kirsten E. Gillibrand

1. Regional Administrator Enck: there are many Superfund sites, like the Gowanus Canal in New York, that have been negatively affected by Combined Sewer Overflows. In many cases, fixing this problem has proven to be very costly for municipalities. What assistance can the EPA provide to municipalities like the City of New York and others to help them improve their wastewater systems to prevent Combined Sewer Overflows?

Answer: The EPA provides significant funding to the states through the Clean Water State Revolving Fund Program in the form of low-cost financing for a wide range of water quality infrastructure projects. In its continuing support of the program, the EPA provided $ $147 million to New York State in FY 2013. In addition, the EPA provides states and

[4] *ibid*

municipalities training and technical support on an array of water infrastructure issues. As an example, the agency recently assisted New York City and other municipalities in the region on how to use the EPA's Climate Resilience and Adaptation Tool (CREAT), a software tool to assist drinking water and wastewater utility owners and operators in understanding potential climate change threats and in assessing the related risks at their individual utilities.

2. **Are there policy changes that we could make in Congress to help provide the EPA with more tools to assist municipalities address Combined Sewer Overflows?**

Answer: The EPA, through its national efforts and at the regional level, works cooperatively with municipalities to address any potential Combined Sewer Overflow issues. If there are certain municipalities that you believe could benefit from a dialogue with the agency, the Region stands ready to work with your office and communities on CSO matters.

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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

July 31, 2014

Mike Shapiro
Principle Deputy Assistant Administrator
Office of Water, U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Dear Mr. Shapiro:

Thank you for appearing before the Committee on Environment and Public Works, Subcommittee on Water and Wildlife's legislative hearing on July 16, 2014. We appreciate your testimony and we know that your input will prove valuable as we continue our work on this important topic.

Enclosed are questions for you that have been submitted by Senator Vitter for the hearing record. Please submit your answers to these questions by COB August 14, 2014, to the attention of Drew Kramer, Senate Committee on Environment and Public Works, 410 Dirksen Senate Office Building, Washington, DC 20510. In addition, please provide the Committee with a copy of your answers via electronic mail to Drew_Kramer@epw.senate.gov. To facilitate the publication of the record, please reproduce the questions with your responses.

Again, thank you for your assistance. Please contact Jason Albritton of the Majority Staff at (202) 224-8832, or Chris Tomassi of the Minority Staff at (202) 224-6176 with any questions you may have. We look forward to reviewing your answers.

Sincerely,

Barbara Boxer
Chairman

David Vitter
Ranking Member

Environment and Public Works Committee Hearing
July 16, 2014
Follow-Up Questions for Written Submission

Questions for Shapiro

Questions from:

Senator David Vitter

1. S. 571, the Great Lakes Water Protection Act, would prohibit publicly owned treatment works (POTW) from blending partially and fully treated wastewater during wet weather events, except in limited circumstances. Can you please explain how this prohibition would affect and impact POTW's which are currently permitted to blend? What costs would local communities incur if they are no longer able to use blending to manage wet weather events?

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 1 4 2014

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Barbara Boxer
Chairman, Committee on
Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Chairman Boxer:

Thank you for your letter of July 31, 2014, to the U.S. Environmental Protection Agency requesting responses to a question for the record following the July 16, 2014, legislative hearing before the Committee on Environment and Public Works, Subcommittee on Water and Wildlife. The response is provided as an enclosure to this letter.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Cathy Davis in the EPA's Office of Congressional and Intergovernmental Relations at Davis.CatherineM@epa.gov or 202-564-2703.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

14-001-3081

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 14 2014

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable David Vitter
Ranking Member, Committee on
Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Vitter:

Thank you for your letter of July 31, 2014, to the U.S. Environmental Protection Agency requesting responses to a question for the record following the July 16, 2014, legislative hearing before the Committee on Environment and Public Works, Subcommittee on Water and Wildlife. The response is provided as an enclosure to this letter.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Cathy Davis in the EPA's Office of Congressional and Intergovernmental Relations at Davis.CatherineM@epa.gov or 202-564-2703.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

14-001-3081

Environment and Public Works Committee Hearing
July 16, 2014
Follow-Up Questions for Written Submission
Michael H. Shapiro

Questions from: Senator David Vitter

1. **S. 571, the Great Lakes Water Protection Act, would prohibit publicly owned treatment works (POTW) from blending partially and fully treated wastewater during wet weather events, except in limited circumstances. Can you please explain how this prohibition would affect and impact POTW's which are currently permitted to blend? What costs would local communities incur if they are no longer able to use blending to manage wet weather events?**

   In EPA's view, some of the provisions of S.571 are ambiguous and/or, in some cases, may be less stringent than EPA's existing bypass regulation. EPA has not analyzed how this bill would affect costs to local communities.

Environment and Public Works Committee Hearing
July 16, 2014
Follow-Up Questions for Written Submission
Michael H. Shapiro

Questions from: Senator David Vitter

1. **S. 571, the Great Lakes Water Protection Act, would prohibit publicly owned treatment works (POTW) from blending partially and fully treated wastewater during wet weather events, except in limited circumstances. Can you please explain how this prohibition would affect and impact POTW's which are currently permitted to blend? What costs would local communities incur if they are no longer able to use blending to manage wet weather events?**

   In EPA's view, some of the provisions of S.571 are ambiguous and/or, in some cases, may be less stringent than EPA's existing bypass regulation. EPA has not analyzed how this bill would affect costs to local communities.

AL-14-001-4233

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

August 22, 2014

The Honorable Gina McCarthy
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Dear Administrator McCarthy:

Thank you for appearing before the Committee on Environment and Public Works on July 23, 2014, at the hearing entitled, "Oversight Hearing: EPA's Proposed Carbon Pollution Standards for Existing Power Plants." We appreciate your testimony and we know that your input will prove valuable as we continue our work on this important topic.

Enclosed are questions for you that have been submitted by Senators Boxer, Markey, Sessions, Fischer, Wicker, Vitter and Inhofe for the hearing record. Please submit your answers to these questions by COB September 5, 2014 to the attention of Colin MacCarthy, Senate Committee on Environment and Public Works, 410 Dirksen Senate Office Building, Washington, DC 20510. In addition, please provide the Committee with a copy of your answers via electronic mail to Colin_MacCarthy@epw.senate.gov. To facilitate the publication of the record, please reproduce the questions with your responses.

Again, thank you for your assistance. Please contact Joe Mendelson of the Majority Staff at (202) 224-8832, or Bryan Zumwalt of the Minority Staff at (202) 224-6176 with any questions you may have. We look forward to reviewing your answers.

Sincerely,

Barbara Boxer
Chairman

David Vitter
Ranking Member

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator Barbara Boxer

1. Administrator McCarthy, in May of this year, the National Climate Assessment found that increases in global temperatures would cause associated increases in premature deaths related to worsened ozone and particle pollution. How will actions to reduce dangerous carbon pollution under EPA's proposed rule impact the nation's air quality? Will the rules result in significant health benefits from reductions in air pollution emissions? Please describe these benefits.

2. Administrator McCarthy, EPA's proposed carbon standards are pursuant to legal authority under Section 111 of the Clean Air Act. Section 111 of the Clean Air Act is designed to foster the implementation and development of new pollution control technologies. Can you explain the Clean Air Act's historic role in creating American leadership in the development of environmental technologies? Can you describe how the proposed rules will enhance America's leadership in developing new innovations in air pollution controls, energy efficiency, and renewable energy technologies?

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator Edward J. Markey

1. Please clarify what the EPA is required to complete in terms of cost-benefit analyses of the proposed power plant rule and specify whether these costs and benefits are required to be examined in the domestic or international context. Did the EPA complete these required analyses? What were the results? How and to what extent is the social cost of carbon incorporated into these analyses?

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator Jeff Sessions

1. Your proposal makes a lot of assumptions that include a large increase in the electricity generated from natural gas. Does your cost-benefit calculation consider the cost of additional natural gas pipeline infrastructure necessary to comply with the ruling? Does it also include the loss in jobs and economic output that are associated with any significant increase in the cost of natural gas? Does your analysis include any rise in price for natural gas as a result of increased consumption?

2. You asked for comment on whether the rule "should include in the state goals... nuclear capacity whose construction is sufficiently likely...." Has EPA staff ever before decided if a nuclear power plant should or should not be built? Can you please detail the decision-making process that EPA used in that situation?

3. Your rule assumes that Watts Bar Unit 2 is completed and begins operating. Can you please detail the impact to Tennessee's emissions rate targets if the NRC denies Watts Bar Unit 2 an operating license? Can you please describe EPA's ability to pre-judge an NRC technical matter such as the issuance of an operating license for a nuclear power plant?

4. In the history of the Clean Air Act, isn't it true that EPA has never used Section 111(d) of the Clean Air Act to control emissions from sources that are outside the boundaries of the source being regulated?

5. In the Supreme Court's ruling last month in *UARG v. EPA*, the Court expressed skepticism about EPA efforts to reinterpret longstanding provisions of the Clean Air Act in a manner that exercises vast new EPA powers.

    i. Do you believe that Congress has ever spoken "clearly" in Section 111(d) to give EPA this "vast economic" power to control energy generation in all 50 states?

    ii. This Committee held a hearing on June 18th to discuss the Administration's global warming agenda. Alabama Attorney General Luther Strange explained that EPA is prohibited by law from regulating sources under Section 111(d) if EPA has already regulated those sources under Section 112 of the Clean Air Act. In 2012, EPA issued a final rule entitled "Utility MACT" (also called the "MATS" rule). Didn't that rule regulate coal-fired power plants under Section 112? Given that,

please explain how regulation of coal-fired power plants under Section 111(d) is not therefore prohibited.

6. It has been suggested by some in the Administration and their supporters that, since Congress has declined to pass legislation on climate change, that EPA must take action on its own. Yet, according to a September 2013 report by the Congressional Research Service, "Direct federal funding to address global climate change totaled approximately $77 billion from FY2008 through FY2013." This included research, technology development, and other programs.

    i. Did Congress "decline to act" when it spent this vast amount of taxpayer funds on climate-related programs and actions?

    ii. Isn't it true that, in our system of government, federal agencies can only act legally pursuant to valid authorizations from Congress, not in the absence of action by Congress?

7. EPA's power-plant carbon regulations will require states to fundamentally reorganize their state public utility commissions and environmental regulators in order to implement carbon planning. These changes will inevitably require action by state legislatures. I'm concerned EPA's rushed timeline forces state legislators to confront difficult issues in short order. Did EPA account for the need for state legislation when it formed this timeline? What would be the result if state legislators refuse to enact legislation needed for a state to comply with EPA's existing source performance standards?

8. Ninety-nine percent of the benefits EPA claimed in the Mercury and Air Toxics Standard were purported from $PM_{2.5}$ reductions. Almost all of the benefits from the Cross State Air Pollution Rule were from $PM_{2.5}$ reductions. And now, once again, a majority of the benefits for EPA's power-plant carbon regulations come from $PM_{2.5}$. It appears that you are counting the same benefits twice. Please state the benefits that are not related to PM.

9. The 111(d) proposed rule and supporting documents assert that rising temperatures are occurring. But we have now gone more than 17 years without a significant increase in global temperatures. How many years will we have to go without a significant increase in global temperatures before EPA concludes anthropogenic global warming is unlikely to be catastrophic and does not justify the massive costs your rules seek to impose upon our economy?

10. If the proposed regulations are implemented successfully, and US power plant emissions decrease by 30% from 2005 levels by 2030,

    i. Will hurricanes that make landfall in the US be less severe and/or less frequent;

    ii. Will tornadoes in the US be less severe and/or less frequent;

    iii. Will wildfires in the US be less severe and/or less frequent;

    iv. Will droughts in the US be less severe and/or less frequent; and

v. Will floods in the US be less severe and/or less frequent?

For each answer to questions a) through e), please provide scientific data or peer-reviewed evidence corroborating your assertions.

11. Three years ago, EPA committed to completing a process by July of this year to determine how forest biomass will be treated under the Agency's greenhouse gas programs. EPA's biomass policy is a critical issue for forest landowners, wood products, and rural communities in my state and across the country, where biomass can create jobs and domestic energy. I understand that EPA has been working to develop a biomass accounting framework. It is essential that the framework clearly recognize that biomass energy is carbon neutral, be simple, and be as close to national scale as possible. Can you provide an update on the timing for the release of the framework, and assure us that it will reflect these principles?

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator Roger Wicker

1. Mississippi Department of Environmental Quality has said that power plants Daniel Units 1 and 2 have spent $660 million on a scrubber project to comply with recent federal regulations. Does this proposal strand investments that utilities are currently making to comply with other EPA environmental rules?

2. South Mississippi Electric, a not-for- profit consumer owned cooperative, which spent $65 million in similar upgrades to address the MATS rule. Wouldn't the loss of these assets, along with the cost of replacement power result in a dramatic increase in the cost of electricity for consumers in my state?

3. In Mississippi's state goal calculation, EPA has assumed the state can increase its renewable energy generation by 262 percent from 2012 levels. What proof does EPA have that this is possible in Mississippi? EPA's own technical support documents show zero potential for on-shore wind generation in Mississippi. Did EPA consider that North Carolina's compliance options include demand-side energy efficiency measures and out-of-state renewable energy credits?

4. Three years ago, EPA committed to completing a process by July of this year to determine how forest biomass will be treated under the Agency's greenhouse gas programs. EPA's biomass policy is a critical issue for forest landowners, wood products, and rural communities in my state and across the country, where biomass can create jobs and domestic energy. I understand that EPA has been working to develop a biomass accounting framework. It is essential that the framework clearly recognize that biomass energy is carbon neutral, be simple, and be as close to national scale as possible. Can you provide an update on the timing for the release of the framework, and assure us that it will reflect these principles?

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator Deb Fischer

1. How does EPA justify forcing substantial investments in emission control for sulfur dioxide, NOx ("nox"), and mercury, and then tell the power plants they must run less after making such major investments? Have your calculated stranded investment as part of the cost of this regulation?

2. Often energy is generated in one state and the electricity is consumed in another, or several other states. For example, Laramie River Station, a coal fired plant in Wyoming, has partners in multiple states, Nebraska (LES), Colorado, Wyoming, and North Dakota. Has EPA considered this fairly common practice, and how would individual states be assessed responsibility? Would the State where the generation resource is located be fully responsible for the carbon intensity of that resource?

3. Annual average capacity factor data from the Energy Information Administration shows that the natural gas combined cycle fleet has never achieved a 70% annual average capacity factor. To date, the highest annual average capacity factor of the U.S. combined cycle fleet was 51%. That is a 20% gap between the demonstrated reality for natural gas, as compared with what EPA proposes in the rule. What makes EPA confident that not only the natural gas combined cycle generation infrastructure, but the natural gas supply chain, transmission, and distribution infrastructure is technically capable of achieving this monumental task between now and 2030?

4. Were detailed analyses carried out by EPA to consider the practical and economic impacts associated with what will be an unprecedented dependence on natural gas? Can you please provide those studies as soon as possible so that they can be evaluated during the comment period?

5. The highest annual average capacity factor of 51% for the country's natural gas combined cycle fleet occurred in 2012 coincidental with very low natural gas prices. As a result, dispatch of natural gas combined cycle units became economical. What proof can EPA provide to the Committee that demonstrates that the Agency has adequately considered fluctuations in natural gas price, supply and demand out to 2030 and beyond, especially when coupled with a 20% increase in the capacity factor, to 70%, to ensure that American working class families will be able to afford to keep the lights on?

6. How did EPA arrive at a 6% heat rate reduction? What evidence does EPA that such an improvement has ever occurred in practice? Did EPA factor in that many units are adding pollution control equipment to comply with MATS by 2016 which will drive heat rates up—and not down? If so, how does EPA end up assuming that heat rates will still improve by 6%?

7. Why are you setting up this new program for power plants while simultaneously stepping away from the RFS and the carbon reductions it brings? Biodiesel, for example, according to your agency's own calculations reduces carbon emissions by up to 86 percent; yet you're proposing an effective cut of at least 30 percent for biodiesel volumes under the RFS this year compared with last year's production. Why the inconsistency?

8. Over the past few months, we've seen commodity markets respond to an expected bumper corn crop. It is good to see carryover stocks recover after the 2012 drought, but these falling commodity prices are obviously going to have an impact on Nebraska's agriculture sector and could even be low enough to trigger federal farm program payments. With the delay and uncertainty surrounding the RFS rulemaking, the EPA is exacerbating this problem. Has EPA evaluated the impacts of your proposed rule on commodity prices, and what do you expect to occur in commodity markets when a final rule is released?

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator David Vitter

1. According to your staff the authority provided to EPA under the Clean Air Act allows for EPA, in the case of an unsatisfactory plan submission by a State, to reject the State plan and put in place a Federal plan. However, nowhere in the proposal as published in the Federal Register is such a Federal plan described. Does EPA plan to develop a model Federal plan for review prior to the closure of the comment period on the proposal? Are you opposed to providing such information?

2. Following on the lack of transparency regarding a Federal plan, if EPA were to reject a State plan or a State were to fail to submit one, please tell the Committee how EPA would enforce any requirements under a Federal plan that necessitates utilities switching to lower or non-emitting resources, RTO markets to change the order of dispatch, or utilities to reduce electricity demand through demand side management energy efficiency measures? Please include references, including those to relevant Clean Air Act provisions, providing the EPA the authority to make such requirements?

3. Did EPA factor load growth or economic growth into the calculation of state emission rate targets?

4. Your statement provided to the Committee, focuses on the importance of reducing carbon dioxide emissions to address climate change. What direct measurable reductions does the existing source proposal achieve in the following:

    - Global average temperature reduction?
    - Sea level rise?
    - What is the margin of error in these estimates?
    - What impact will Australia's recent rejection of its carbon tax have on these reductions?

5. What is the total domestic increase in U.S. natural gas consumption associated with moving to a 70% capacity factor for all Natural Gas Combined Cycle (NGCC) plants?

    - What additional pipeline capacity infrastructure needs to be in place to handle this increased demand?
    - What analysis of this need was conducted and included as part of the proposal?
    - Did the EIA forecasted natural gas price used in the Integrated Planning Model calculations reflect this new 70% capacity factor usage/demand?

- Please tell us the extent to which U.S. pipeline companies added to their pipeline capacity in 2014?
- Did EPA factor the cost of pipeline construction being passed on to the consumer, in the instance were a pipeline company were to finance the cost of new pipeline construction through take or pay contracts?

6. The highest annual average capacity factor of 51% for the country's natural gas combined cycle fleet occurred in 2012 coincidental with very low natural gas prices. As a result, dispatch of natural gas combined cycle units became economical. What proof can EPA provide to the Committee that demonstrates that the Agency has adequately considered fluctuations in natural gas price, supply and demand out to 2030 and beyond, especially when coupled with a 20% increase in the capacity factor, to 70%, to ensure that American working class families will be able to afford to keep the lights on? Were detailed analyses carried out by EPA to consider the practical and economic impacts associated with what will be an unprecedented dependence on natural gas? Can you please provide those studies to the Committee in advance of the comment period closing so that they can be evaluated during the comment period?

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7. Why are CO2 emissions from under construction NGCC units part of the state goal computation? What happens if those units do not become operational?

8. Can a state have its target emissions rates adjusted if nuclear units under construction are not completed, since their generation is part of the baseline calculation for the states where those units are located? What would be the process for adjusting the state targets?

9. According to an analysis by the *Economist* magazine, renewable energy targets in Germany are popular, but their economic consequences are not. As the *Economist* explained, consumers "increasingly dislike" the "side-effects" of subsidizing renewable energy. "First, there is the rising cost of electricity. This is a consequence of a renewable-energy law passed in 2000 which guarantees not only 20 years of fixed high prices for solar and wind producers but also preferred access to the electricity grid. As a result, Bavarian roofs now gleam with solar panels and windmills dominate entire landscapes. Last year, the share of renewables in electricity production hit a record 23.4%."

   The *Economist* explained further, "This subsidy is costly. The difference between the market price for electricity and the higher fixed price for renewables is passed on to consumers, whose bills have been rising for years. An average household now pays an extra €260 ($355) a year to subsidise renewables: the total cost of renewable subsidies in 2013 was €16 billion. Costs are also going up for companies, making them less competitive than rivals from America, where energy prices are falling thanks to the fracking boom."

   - Do you believe that Germany's renewable energy policies have delivered zero-carbon energy without harming consumers? Do you believe that states, as they attempt to meet EPA's emissions targets under the proposal for existing power plants, can both deploy

more renewable energy while doing so without raising the cost of electricity, or imposing higher costs on consumers?

10. Do you think the U.S. drilling boom, spurred by the technological advance of hydraulic fracturing, coupled with horizontal drilling, has been positive or negative for the U.S. economy, particularly for consumers?

11. As you know NARUC is a national organization representing State Commissions statutorily responsible for regulating utilities that provide energy services. Earlier this month NARUC passed and adopted a "Resolution on Preserving State Authority over New Electric Generation". It reflects that NARUC takes seriously the Federal Power Act's reservation of authority to the States over utility generation, distribution, and resource portfolios and that NARUC supports legal and legislative actions to protect and preserve States' authority to decide the type, amount and timing of new or existing generation facilities that will be constructed or maintained within the State to achieve legitimate State policy objectives.

    With the adoption of this resolution do you disagree that NARUC could be interpreting your existing source proposal under Section 111(d) of the Clean Air Act as usurping the authority reserved to the States by the Federal Power Act to decide the type, amount and timing of new or existing generation facilities that will be constructed or maintained within the State?

12. As you are at least tangentially aware, fossil resources provide the base molecules and products that we need to manufacture virtually everything we use in a modern society. In fact, coal combustion byproducts are what comprise, strengthen and make possible our roads and infrastructure. Chemicals derived from oil and natural gas production are what are refined and manufactured into virtually every product we use today, from computers to our homes, and are what make possible wind turbines (all components derived, manufactured or refined from fossil fuels) and solar panels (all components derived, manufactured or refined from fossil fuels). Accordingly, many claims about eliminating our use of fossil resources are wholly illusory. However, in order to provide a better understanding of some of your claims regarding our nation's dependence on these resources, other than counting intermittent electricity generation as a product, please provide a comprehensive list of all the things that are a product or can be manufactured out of sunlight and wind (again, please exclude electricity).

13. The proposal provides states the flexibility to adopt mass based limitations in lieu of rate based limitations and permits trading among affected sources. Would states be required to pass legislation allowing sources to participate in a cap-and-trade program? Given the length of time for RGGI and California to adopt and stand up their trading program, why does EPA believe that states can adopt these rules by 2018?

14. Is EPA going to offer a copy of the ICF Integrated Planning Model to each state so they may perform their own re-dispatch calculations and arrive at a least cost compliance plan to be included in their SIP submission to EPA?

15. EPA has emphasized that its proposed rule offers significant flexibility to states allowing them to develop plans that align with their unique circumstances, as well as their other environmental policy, energy, and economic goals, However, EPA set very aggressive interim goals for multiple states that would require very significant resource changes by 2020. For example, EPA developed interim goals for Arizona, Mississippi, and Nevada by assuming that all coal-fired power plants would be retired and replaced with other generating resources by 2020. How will EPA work collaboratively with states to develop a more gradual and less economically disruptive approach to achieving emissions reductions?

16. EPA assumes that the heat rate of the existing coal fleet can be improved by 6%. How did EPA arrive at the 6% heat rate reduction for the existing coal fleet? Please confirm the analyses and studies relied up by the Agency in determining the achievement of and cost associated with this heat rate improvement by the existing coal fleet. Did EPA examine a recent analysis provided to the Secretary of Energy by the National Coal Council? Are these materials included in the docket associated with this rulemaking? Did EPA consider the energy penalties associated with control necessary to achieve compliance with MATs and other environmental regulations?

17. EPA stated that it evaluated different baselines for purposes of establishing the building blocks. Is this information and analysis included in the Docket associated with this rulemaking? Is it publicly available?

18. Is the formula by which EPA converted the state goals to mass-based reductions and then aggregated them to arrive at a national reduction goal included in the Docket associated with this rulemaking? Is that formula publicly available?

19. Please confirm that existing hydropower may not be included in State plans? Please confirm that offsets may not be used in State plans to meet emissions rate-based goals or mass-based goals?

20. If a Renewable Energy Credit (REC) is transferred from one state to another due to the sale of either power or RECs, which state can include the emissions reductions represented by the REC in its State Plan? Could banked RECs be included in State compliance plans? What period could the banked RECs cover?

21. When a State compliance plan is approved by EPA, making the elements of which federally enforceable, what provision of the Clean Air Act allows citizen suits to be brought against States when targets included in that compliance plan are not met?

22. While new sources come under Section 111(b) at what point do those sources become part of a compliance demonstration under Section 111(d)?

23. It appears that when setting the energy efficiency targets EPA assumed each State could achieve the same percentage energy efficiency level of 1.5%. If that is correct, why did EPA choose to ignore that differences in each State's energy efficiency potential?

24. Recently, the New York State Department of Environmental Conservation proposed a plan to mitigate damage to fish populations by regularly shuttering the Indian Point nuclear power plant form May 10 to Aug 10 during the highest period of electricity demand. This has set off a debate as to the cost to ratepayers as well as where the 2,000 megawatts of lost generation will come from. Did EPA account for this type of action by a State when crafting the individual state performance goals for CO2 reductions included in the existing source proposal? What would a State need to do to make up for the loss of a significant source of emissions free generation in order to meet its performance goal?

25. On July 6, the New York Times wrote an article describing NRDC's proposal for reducing carbon dioxide pollution from power plants as EPA's "blueprint" for your existing source proposal. In turn you wrote to EPA staff that the article crediting NRDC for the rule is "preposterous."

    - How is the New York Times article incorrect?
    - Have you asked for the New York Times to retract the article?
    - Have you asked for the New York Times to issue a correction?

Environment and Public Works Committee Hearing
July 23, 2014
Follow-Up Questions for Written Submission

Questions for McCarthy

Questions from:

Senator James M. Inhofe

1. In your testimony, you said that the EPA is only mandating a reduction in CO2 emissions through this rule, but how will EPA enforce that if a state does not develop and submit a state plan?

2. If EPA implements a federal plan, will it consider using all four of the "building blocks" that are described in the ESPS rule?
3. Under existing authority, can EPA currently require a state to have gas dispatched at 70% of capacity?
    a. If EPA were to include a higher level of gas dispatch in a federal plan for a state, how would it be enforced? Please provide several hypothetical examples.

4. Under existing authority, can EPA currently require a state to unilaterally restrict electricity demand by 1.5%?
    a. If EPA were to include a restriction on electricity demand or a requirement for electricity efficiency improvements in a federal plan for a state, how would EPA enforce it? Please provide several hypothetical examples.

5. Under existing authority, can EPA currently mandate the use of renewable electricity in a state?
    a. If EPA were to include a mandate to use renewable electricity in a federal plan for a state, how would EPA enforce it? Please provide several hypothetical examples.

6. If the ESPS rule is finalized, will it represent an expansion of EPA's enforcement authority?

7. If the ESPS rule is finalized, will EPA have the authority to do things that it did not previously have?

8. If EPA is not satisfied with the progress a state is making during the ten year compliance window, what will EPA be able to do to ensure compliance is met by the deadline?

9. How much will the ESPS rule reduce global temperatures?

10. How much should projected global temperatures be reduced by to avoid catastrophic global warming?

11. How much additional regulation, in addition to the NSPS and ESPS rules, will be required from EPA to reduce future projected warming by enough to avoid catastrophic global warming?

12. EPA recently rejected a petition by the Sierra Club to require Exxon Mobil to install carbon capture and storage (CCS) technology on a chemical plant in Texas, saying that it would increase the cost of the plant by 25%. In EPA's view this was unreasonable. Separately, EPA is mandating CCS technology at coal fired power plants, which increases their cost by 35%. EPA does not believe this is unreasonable. How do you justify this double standard, where one industry has one acceptable upcharge, but for another industry a lower upcharge is unacceptable?

13. By how much do electricity prices have to go up to prevent any nuclear power plants from retiring in the next several years?

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 5 2015

OFFICE OF CONGRESSIONAL
AND INTERGOVERNMENTAL RELATIONS

The Honorable Barbara Boxer
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Boxer:

Thank you for your August 22, 2014, letter to the Environmental Protection Agency in which you requested responses to Questions for the Record following the July 23, 2014, hearing before the Committee on Environment and Public Works entitled, "Oversight Hearing: EPA's Proposed Carbon Pollution Standards for Existing Plants."

The responses to the questions are provided as an enclosure to this letter. If you have any further questions, please contact me, or your staff may contact Kevin Bailey at bailey.kevinj@epa.gov or (202) 564-2998.

Sincerely,

Laura Vaught

Laura Vaught
Associate Administrator

Enclosure

14-001-4233

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 5 2015

OFFICE OF CONGRESSIONAL
AND INTERGOVERNMENTAL RELATIONS

The Honorable David Vitter
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Vitter:

Thank you for your August 22, 2014, letter to the Environmental Protection Agency in which you requested responses to Questions for the Record following the July 23, 2014, hearing before the Committee on Environment and Public Works entitled, "Oversight Hearing: EPA's Proposed Carbon Pollution Standards for Existing Plants."

The responses to the questions are provided as an enclosure to this letter. If you have any further questions, please contact me, or your staff may contact Kevin Bailey at bailey.kevinj@epa.gov or (202) 564-2998.

Sincerely,

Laura Vaught
Associate Administrator

Enclosure

Questions for the Record
Environment and Public Works Committee Hearing
July 23, 2014
Administrator Gina McCarthy

Questions From:

Senator Barbara Boxer

1. Administrator McCarthy, in May of this year, the National Climate Assessment found that increases in global temperatures would cause associated increases in premature deaths related to worsened ozone and particle pollution. How will actions to reduce dangerous carbon pollution under EPA's proposed rule impact the nation's air quality? Will the rules result in significant health benefits from reductions in air pollution emissions? Please describe these benefits.

All told, in 2030 when states meet their goals, our proposal will result in about 30 percent less carbon pollution from the power sector across the U.S. when compared with 2005 levels – 730 million metric tons of carbon dioxide out of the air. In addition, we will cut pollution that causes smog and soot by more than 25 percent. The first year that these standards go into effect, we'll avoid up to 100,000 asthma attacks and 2,100 heart attacks—and those numbers increase over time.

In 2030, the Clean Power Plan will deliver climate and health benefits of up to $90 billion. And for soot and smog reductions alone, which means for every dollar we invest in the plan, families will see $7 in health benefits. And because energy efficiency is such a smart, cost-effective strategy, we predict that, in 2030, average electricity bills for American families will be 8 percent cheaper than they would be without the Clean Power Plan.

2. Administrator McCarthy, EPA's proposed carbon standards are pursuant to legal authority under Section Ill of the Clean Air Act. Section Ill of the Clean Air Act is designed to foster the implementation and development of new pollution control technologies. Can you explain the Clean Air Act's historic role in creating American leadership in the development of environmental technologies? Can you describe how the proposed rules will enhance America's leadership in developing new innovations in air pollution controls, energy efficiency, and renewable energy technologies?

The Clean Air Act has a proven record of progress dating back to 1970. According to a 1997 EPA Report to Congress, the first 20 years of Clean Air Act programs, from 1970 - 1990, led to the prevention in the year 1990 of:

- **205,000 premature deaths**
- **672,000 cases of chronic bronchitis**
- **21,000 cases of heart disease**

- **843,000 asthma attacks**
- **189,000 cardiovascular hospitalizations**
- **10.4 million lost I.Q. points in children - from lead reductions**
- **18 million child respiratory illnesses**

In 1990, the Act was revised with overwhelming bipartisan support and signed into law by President Bush. A peer-reviewed, follow-up study to the 1997 EPA Report to Congress that covers the 1990 to 2020 period was published in 2011. The 2011 study includes a set of central estimates indicating that for the year 2010, the 1990 amendments and associated clean air programs prevented:

- **160,000 premature deaths**
- **54,000 cases of chronic bronchitis**
- **130,000 cases of heart disease – acute myocardial infarction**
- **1,700,000 cases of asthma exacerbation**
- **86,000 emergency room visits**
- **3,200,000 lost school days**
- **13,000,000 lost work days**

Furthermore, a recent EPA air quality trends report and associated data indicate that from 1970 through 2013, emissions of six common pollutants fell by 68%, while gross domestic product grew 234%, vehicle miles traveled has increased by 168%, and population grew by 54%. These findings clearly demonstrate that economic growth and environmental protection can go hand in hand.

Other particularly noteworthy benefits of the Clean Air Act's 40-year history include significant reductions in the number of people living in areas designated nonattainment for health-based air quality standards; dramatic reductions in ambient levels of lead (Pb) that have improved the neurological health of our children; significant reductions in acid deposition resulting in improvements in the health of lakes, streams, forests, and ecosystems; substantial reductions in emissions and exposures to a wide range of hazardous air pollutants; and phase-out of the most harmful ozone-depleting chemicals resulting in reductions in skin cancer and cataracts.

The Clean Air Act has prompted deployment of clean technologies, and has helped provide impetus for technology innovations that reduce emissions and control costs. We expect the Clean Power Plan will follow this pattern, sparking innovation across a wide variety of

energy technologies, resulting in cleaner forms of American-made energy and cutting our dependence on foreign oil. Combined with the President's other actions to increase the efficiency of our cars and household appliances, the President's plan will help American families cut energy waste, lowering their gas and utility bills.

Questions from:

Senator Edward J. Markey

1. Please clarify what the EPA is required to complete in terms of cost-benefit analyses of the proposed power plant rule and specify whether these costs and benefits are required to be examined in the domestic or international context. Did the EPA complete these required analyses? What were the results? How and to what extent is the social cost of carbon incorporated into these analyses?

Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan. Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602ria-clean-power-plan.pdf).

The interagency workgroup on the Social Cost of Carbon (SCC) determined that a global measure of SCC is appropriate in this context because emissions of greenhouse gases contribute to damages around the world and the world's economies are now highly interconnected. To reflect the global nature of the problem, the SCC estimates incorporate the full damages caused by carbon dioxide emissions and we expect other governments to consider the global consequences of their greenhouse gas emissions when setting their own domestic policies.

Questions from:

Senator Jeff Sessions

1. Your proposal makes a lot of assumptions that include a large increase in the electricity generated from natural gas. Does your cost-benefit calculation consider the cost of additional natural gas pipeline infrastructure necessary to comply with the ruling? Does it also include the loss in jobs and economic output that are associated with any significant increase in the cost of natural gas? Does your analysis include any rise in price for natural gas as a result of increased consumption?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways and in fact EPA's modeling suggests that the power sector will comply without significant gas

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switching. Natural gas is a relatively clean and low-emitting form of energy, and the proposed Clean Power Plan recognizes the role it can play in lowering CO_2 emissions. While natural gas demand is anticipated to increase in response to the guidelines and other power sector rules, we believe supply is sufficient to justify the 70% capacity factor. More details about our understanding of the availability of natural gas, including the infrastructure that would be needed to supply it, are available in Chapter 3 of the Greenhouse Abatement Measures TSD, available at: http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-ghg-abatement-measures.

2. You asked for comment on whether the rule "should include in the state goals ... nuclear capacity whose construction is sufficiently likely ... " Has EPA staff ever before decided if a nuclear power plant should or should not be built? Can you please detail the decision-making process that EPA used in that situation?

The proposed Clean Power Plan does not contemplate the EPA's deciding whether a nuclear power plant should or should not be built, and does not pre-judge Nuclear Regulatory Commission (NRC) licensing proceedings. . Nuclear power is part of an all-of-the-above, diverse energy mix and provides a low-cost, emissions-free source of power. Nuclear power can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. Finalizing construction of five new nuclear units at three plants and preserving nuclear power generation at existing plants across the country are two cost-effective ways to avoid emissions from fossil fuel-fired power plants.

The EPA notes that the proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering jobs and communities in a transitioning energy economy.

3. Your rule assumes that Watts Bar Unit 2 is completed and begins operating. Can you please detail the impact to Tennessee's emissions rate targets if the NRC denies Watts Bar Unit 2 an operating license? Can you please describe EPA's ability to pre-judge an NRC technical matter such as the issuance of an operating license for a nuclear power plant?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a low-cost, emissions-free source of power. Nuclear power can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. Finalizing construction of five new nuclear units at three plants and preserving nuclear power generation at existing plants across the country are two cost-effective ways to avoid emissions from fossil fuel-fired power plants. The proposed Clean Power Plan does not pre-judge NRC licensing proceedings.

4. In the history of the Clean Air Act, isn't it true that EPA has never used Section 111(d) of the Clean Air Act to control emissions from sources that are outside the boundaries of the source being regulated?

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures qualify as part of the BSER for reducing carbon emissions from regulated sources at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf), and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan. The EPA notes that the proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering jobs and communities in a transitioning energy economy.

5. In the Supreme Court's ruling last month in UARG v. EPA, the Court expressed skepticism about EPA efforts to reinterpret longstanding provisions of the Clean Air Act in a manner that exercises vast new EPA powers.

> i. Do you believe that Congress has ever spoken "clearly" in Section 111 (d) to give EPA this "vast economic" power to control energy generation in all 50 states?
>
> ii. This Committee held a hearing on June 18th to discuss the Administration's global warming agenda. Alabama Attorney General Luther Strange explained that EPA is prohibited by law from regulating sources under Section 111 (d) if EPA has already regulated those sources under Section 112 of the Clean Air Act. In 2012, EPA issued a final rule entitled "Utility MACT" (also called the "MATS" rule). Didn't that rule regulate coal-fired power plants under Section 112? Given that, please explain how regulation of coal-fired power plants under Section 111(d) is not therefore prohibited.

Along with the proposed rule, the EPA included in the docket a Legal Memorandum providing background for the legal issues raised by the rule. That Legal Memorandum details the EPA's understanding, at the time of proposal, of the ambiguity arising from Congress's simultaneous enactment of two separate versions of this provision. That document can be found using Docket ID Number EPA-HQ-OAR-2013-0602-0419. The

EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

6. It has been suggested by some in the Administration and their supporters that, since Congress has declined to pass legislation on climate change, that EPA must take action on its own. Yet, according to a September 2013 report by the Congressional Research Service, "Direct federal funding to address global climate change totaled approximately $77 billion from FY2008 through FY20 13." This included research, technology development, and other programs.

i. Did Congress "decline to act" when it spent this vast amount of taxpayer funds on climate-related programs and actions?

ii. Isn't it true that, in our system of government, federal agencies can only act legally pursuant to valid authorizations from Congress, not in the absence of action by Congress?

The EPA is acting pursuant to Section 111(d) of the Clean Air Act, which provides for the establishment of standards of performance for categories of stationary sources that contribute to dangerous air pollution.

7. EPA's power-plant carbon regulations will require states to fundamentally reorganize their state public utility commissions and environmental regulators in order to implement carbon planning. These changes will inevitably require action by state legislatures. I'm concerned EPA's rushed time line forces state legislators to confront difficult issues in short order. Did EPA account for the need for state legislation when it formed this timeline? What would be the result if state legislators refuse to enact legislation needed for a state to comply with EPA's existing source performance standards?

Under the proposed Clean Power Plan, states will have fifteen years from when the rule is final until compliance with the final target, and have a ten year averaging period over which to meet the interim targets, time in which to plan for and achieve reductions in carbon pollution. The EPA proposed to allow and sought comment on allowing states up to two or three years to submit final plans depending on whether they work alone or in partnership with other states.

The Clean Air Act directs EPA to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan which could provide an example for states as they develop their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

8. Ninety-nine percent of the benefits EPA claimed in the Mercury and Air Toxics Standard were purported from PM2.5 reductions. Almost all of the benefits from the Cross State Air Pollution Rule were from PM2.5 reductions. And now, once again, a majority of the benefits for EPA's power-plant carbon regulations come from PM2.5. It appears that you are counting the same benefits twice. Please state the benefits that are not related to PM.

Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan. Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602ria-clean-power-plan.pdf).

9. The Ill (d) proposed rule and supporting documents assert that rising temperatures are occurring. But we have now gone more than 17 years without a significant increase in global temperatures. How many years will we have to go without a significant increase in global temperatures before EPA concludes anthropogenic global warming is unlikely to be catastrophic and does not justify the massive costs your rules seek to impose upon our economy?

Recent years have been very warm compared to the historical record, whether examining tropospheric temperatures or surface temperatures. For the tropospheric record (the University of Alabama Huntsville dataset), 2014 was the third warmest year on record globally, and the average of the past 5 years is warmer than any other 5-year period in the record. For global surface temperatures, 2014 was the warmest year on record.

Climate trends are best examined over long time periods (typically 30 years or more), and by examining multiple indicators of change. The U.S. National Academies, together with the Royal Society, recently released an overview of "Climate Change Evidence and Causes." This document discusses how, due to variability in ocean heat uptake, solar output, and other factors, decadal rates of change can be smaller or larger than long-term rates of change. The report finds that "a longer-term warming trend is still evident" when accounting for all data to the present day, and that continued effects of a warming climate can also be seen in indicators such as increasing trends in ocean heat content and sea level rise, as well as in continued melting of Arctic sea ice, glaciers, and the Greenland ice sheet.

10. If the proposed regulations are implemented successfully, and US power plant emissions decrease by 30% from 2005 levels by 2030,

i. Will hurricanes that make landfall in the US be less severe and/or less frequent;

ii. Will tornadoes in the US be less severe and/or less frequent;

iii. Will wildfires in the US be less severe and/or less frequent;

iv. Will droughts in the US be less severe and/or less frequent; and

v. Will floods in the US be less severe and/or less frequent?

For each answer to questions a) through e), please provide scientific data or peer-reviewed evidence corroborating your assertions.

The EPA included with its proposed Clean Power Plan a Regulatory Impact Analysis that estimated the total monetized climate-related benefits and costs of the rule, following applicable statutes, Executive Orders, and other guidance. Although the EPA has not explicitly modeled the extreme weather impacts of this rule, the Clean Power Plan is an important and significant contribution to emission reductions, thereby slowing the rate of global warming and associated impacts.

11. Three years ago, EPA committed to completing a process by July of this year to determine how forest biomass will be treated under the Agency's greenhouse gas programs. EPA's biomass policy is a critical issue for forest landowners, wood products, and rural communities in my state and across the country, where biomass can create jobs and domestic energy. I understand that EPA has been working to develop a biomass accounting framework. It is essential that the framework clearly recognize that biomass energy is carbon neutral, be simple, and be as close to national scale as possible. Can you provide an update on the timing for the release of the framework, and assure us that it will reflect these principles?

As stated in the November 19, 2014, memorandum from Acting Assistant Administrator Janet McCabe to the Regional Air Division Directors, the EPA released a second draft of the technical report, *Framework for Assessing Biogenic Carbon Dioxide for Stationary Sources* and is initiating a second round of peer review to continue advancing the agency's technical understanding of the role that biomass can play in reducing overall greenhouse gas emissions. The revised report takes into account the Science Advisory Board's (SAB's) peer review recommendations on a previous version of the Framework as well as the latest information from the scientific community and other stakeholders. The memorandum also describes the agency's current thinking on biogenic CO2 emissions in the context of the Clean Power Plan (CPP) and the Prevention of Significant Deterioration (PSD) program.

The first SAB peer review of the draft framework provided several key findings and recommendations. Specifically, the SAB found that it is not scientifically valid to assume that all biogenic feedstocks are "carbon neutral." The net biogenic CO2 atmospheric contribution of a specific feedstock will generally depend on a number of factors related to how the biogenic feedstock is produced, transported, and used, or in some cases, what would happen to that feedstock if it were not used for energy production. The SAB also recommended that the EPA develop regional biogenic assessment factors.

Questions from:

Senator Roger Wicker

1. Mississippi Department of Environmental Quality has said that power plants Daniel Units 1 and 2 have spent $660 million on a scrubber project to comply with recent federal regulations. Does this proposal strand investments that utilities are currently making to comply with other EPA environmental rules?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways, including avoiding stranded assets and maintaining electric reliability. Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029.

2. South Mississippi Electric, a not-for- profit consumer owned cooperative, which spent $65 million in similar upgrades to address the MATS rule. Wouldn't the loss of these assets, along with the cost of replacement power result in a dramatic increase in the cost of electricity for consumers in my state?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways, including avoiding stranded assets and maintaining electric reliability. Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029.

EPA projects that the Clean Power Plan will continue – and accelerate – the trend among states, cities, businesses and homeowners who have been working for years to increase energy efficiency and reduce growth in demand for electricity. Nationally, this means that, in 2030 when the plan is fully implemented, electricity bills would be expected to be roughly 8 percent lower than they would been without the actions in state plans. That would save Americans about $8 on an average monthly residential electricity bill.

3. In Mississippi's state goal calculation, EPA has assumed the state can increase its renewable energy generation by 262 percent from 2012 levels. What proof does EPA have that this is possible in Mississippi? EPA's own technical support documents show zero potential for on-shore wind generation in Mississippi. Did EPA consider that North Carolina's compliance options include demand-side energy efficiency measures and out-of- state renewable energy credits?

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures, including increases in each state's renewable electricity generation, qualify as part of the BSER at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf), and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan. The EPA notes that the proposed Clean Power Plan builds on what states are already doing to reduce carbon pollution from existing power plants. It does not require that the states actually use each of the building blocks as they develop their plans for meeting the state goal. Instead, it empowers the states to chart their own, customized path to meet their goals. Under the proposal, the states have a flexible compliance path that allows them to design plans sensitive to their needs, including considering jobs and communities in a transitioning energy economy.

4. Three years ago, EPA committed to completing a process by July of this year to determine how forest biomass will be treated under the Agency's greenhouse gas programs. EPA's biomass policy is a critical issue for forest landowners, wood products, and rural communities in my state and across the country, where biomass can create jobs and domestic energy. I understand that EPA has been working to develop a biomass accounting framework. It is essential that the framework clearly recognize that biomass energy is carbon neutral, be simple, and be as close to national scale as possible. Can you provide an update on the timing for the release of the framework, and assure us that it will reflect these principles?

As stated in the November 19, 2014 memorandum from Acting Assistant Administrator Janet McCabe to the Regional Air Division Directors, the EPA released a second draft of the technical report, *Framework for Assessing Biogenic Carbon Dioxide for Stationary Sources* and is initiating a second round of peer review to continue advancing the agency's technical understanding of the role that biomass can play in reducing overall greenhouse gas emissions. The revised report takes into account the Science Advisory Board's (SAB's) peer review recommendations on a previous version of the Framework as well as the latest information from the scientific community and other stakeholders. The memorandum also describes the agency's current thinking on biogenic CO2 emissions in the context of the Clean Power Plan (CPP) and the Prevention of Significant Deterioration (PSD) program.

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contribution of a specific feedstock will generally depend on a number of factors related to how the biogenic feedstock is produced, transported, and used, or in some cases, what would happen to that feedstock if it were not used for energy production. The SAB also recommended that the EPA develop regional biogenic assessment factors.

Questions from:

Senator Deb Fischer

1. How does EPA justify forcing substantial investments in emission control for sulfur dioxide, NOx ("nox"), and mercury, and then tell the power plants they must run less after making such major investments? Have your calculated stranded investment as part of the cost of this regulation?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways, including avoiding stranded assets and maintaining electric reliability. Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029.

2. Often energy is generated in one state and the electricity is consumed in another, or several other states. For example, Laramie River Station, a coal fired plant in Wyoming, has partners in multiple states, Nebraska (LES), Colorado, Wyoming, and North Dakota. Has EPA considered this fairly common practice, and how would individual states be assessed responsibility? Would the State where the generation resource is located be fully responsible for the carbon intensity of that resource?

The EPA proposed to establish each state's goal considering the fossil fuel-fired power plants located in that state. We requested comment on this and all aspects of the proposed rule.

3. Annual average capacity factor data from the Energy Information Administration shows that the natural gas combined cycle fleet has never achieved a 70% annual average capacity factor. To date, the highest annual average capacity factor of the U.S. combined cycle fleet was 51%. That is a 20% gap between the demonstrated reality for natural gas, as compared with what EPA proposes in the rule. What makes EPA confident that not only the natural gas combined cycle generation infrastructure, but the natural gas supply chain, transmission, and distribution infrastructure is technically capable of achieving this monumental task between now and 2030?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways. Natural gas is a relatively clean and low-emitting form of energy, and the proposed Clean Power Plan recognizes the role it can play in lowering CO_2 emissions. While natural gas demand is anticipated to increase in response to the guidelines and other power sector rules, we believe supply is sufficient to justify the 70% capacity factor. More details about our understanding of the availability of natural gas, including the infrastructure that would be needed to supply it, are available in Chapter 3 of the Greenhouse Abatement Measures TSD, available at: http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-ghg-abatement-measures.

4. Were detailed analyses carried out by EPA to consider the practical and economic impacts associated with what will be an unprecedented dependence on natural gas? Can you please provide those studies as soon as possible so that they can be evaluated during the comment period?

As noted above, we believe supply is sufficient to justify the 70% capacity factor. More details about our understanding of the availability of natural gas, including natural gas prices, are available in Chapter 3 of the Greenhouse Abatement Measures TSD, available at: http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-ghg-abatement-measures. This document has been available during the comment period.

5. The highest annual average capacity factor of 51% for the country's natural gas combined cycle fleet occurred in 2012 coincidental with very low natural gas prices. As a result, dispatch of natural gas combined cycle units became economical. What proof can EPA provide to the Committee that demonstrates that the Agency has adequately considered fluctuations in natural gas price, supply and demand out to 2030 and beyond, especially when coupled with a 20% increase in the capacity factor, to 70%, to ensure that American working class families will be able to afford to keep the lights on?

As noted above, EPA has outlined the details about our understanding of the availability of natural gas, including any effect from expected price fluctuation, in Chapter 3 of the Greenhouse Abatement Measures TSD, available at: http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-ghg-abatement-measures.

EPA projects that the Clean Power Plan will continue – and accelerate – the trend among states, cities, businesses and homeowners who have been working for years to increase energy efficiency and reduce growth in demand for electricity. Nationally, this means that, in 2030 when the plan is fully implemented, electricity bills would be expected to be roughly 8 percent lower than they would been without the actions in state plans. That would save Americans about $8 on an average monthly residential electricity bill.

6. How did EPA arrive at a 6% heat rate reduction? What evidence does EPA that such an improvement has ever occurred in practice? Did EPA factor in that many units are adding pollution control equipment to comply with MATS by 2016 which will drive heat rates up-and not down? If so, how does EPA end up assuming that heat rates will still improve by 6%?

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures, including the heat rate improvement you mentioned which we identified as Building Block 1, qualify as part of the BSER at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf), and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues addressed in the Technical Support Documents and the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

7. Why are you setting up this new program for power plants while simultaneously stepping away from the RFS and the carbon reductions it brings? Biodiesel, for example, according to your agency's own calculations reduces carbon emissions by up to 86 percent; yet you're proposing an effective cut of at least 30 percent for biodiesel volumes under the RFS this year compared with last year's production. Why the inconsistency?

As we announced on November 21, 2014, the EPA intends to take action on the 2014 standards in 2015. In the same timeframe, we plan to take action on RFS standards for both 2015 and 2016. The Administration strongly supports the RFS program's goal of increasing the production and use of renewable fuels, particularly the advanced biofuels, over time. In proposing the 2014 RFS standards, EPA sought to advance the broader goal of the RFS program to spur long-term growth in renewable fuels, while taking account of the need to overcome the constraints that exist in the market and fuel system today.

8. Over the past few months, we've seen commodity markets respond to an expected bumper corn crop. It is good to see carryover stocks recover after the 2012 drought, but these falling commodity prices are obviously going to have an impact on Nebraska's agriculture sector and could even be low enough to trigger federal farm program payments. With the delay and uncertainty surrounding the RFS rulemaking, the EPA is exacerbating this problem. Has EPA evaluated the impacts of your proposed rule on commodity prices, and what do you expect to occur in commodity markets when a final rule is released?

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The EPA recognizes that the delay in issuing the 2014 standards has exacerbated uncertainty in the market for both renewable fuel producers and obligated parties. We intend to take action on the 2014 standards, as well as the 2015 and 2016 RFS standards, this year so that we get back on a more predictable, timely schedule for issuing such rules. The Administration strongly supports the RFS program's goal of increasing the production and use of renewable fuels, particularly the advanced biofuels, over time.

Questions from:

Senator David Vitter

1. According to your staff the authority provided to EPA under the Clean Air Act allows for EPA, in the case of an unsatisfactory plan submission by a State, to reject the State plan and put in place a Federal plan. However, nowhere in the proposal as published in the Federal Register is such a Federal plan described. Does EPA plan to develop a model Federal plan for review prior to the closure of the comment period on the proposal? Are you opposed to providing such information?

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act provides for EPA to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could provide an example for states as they develop their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

2. Following on the lack of transparency regarding a Federal plan, if EPA were to reject a State plan or a State were to fail to submit one, please tell the Committee how EPA would enforce any requirements under a Federal plan that necessitates utilities switching to lower or nonemitting resources, RTO markets to change the order of dispatch, or utilities to reduce electricity demand through demand side management energy efficiency measures? Please include references, including those to relevant Clean Air Act provisions, providing the EPA the authority to make such requirements?

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must

develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act provides for EPA to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could provide an example for states as they develop their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

3. Did EPA factor load growth or economic growth into the calculation of state emission rate targets?

Because the proposed state goals are expressed as a rate of emissions per unit of electricity generated and the proposed goals do not cover new sources, the proposed Clean Power Plan does not present any limit to load growth.

4. Your statement provided to the Committee, focuses on the importance of reducing carbon dioxide emissions to address climate change. What direct measurable reductions does the existing source proposal achieve in the following:

- Global average temperature reduction?
- Sea level rise?
- What is the margin of error in these estimates?
- What impact will Australia's recent rejection of its carbon tax have on these reductions?

The EPA included with its proposed Clean Power Plan a Regulatory Impact Analysis that estimated the total monetized climate-related benefits and costs of the rule, following applicable statutes, Executive Orders, and other guidance. Although the EPA has not explicitly modeled the temperature or sea level rise impacts of this rule, the Clean Power Plan is an important and significant contribution to emission reductions, thereby slowing the rate of global warming and associated impacts.

5. What is the total domestic increase in U.S. natural gas consumption associated with moving to a 70% capacity factor for all Natural Gas Combined Cycle (NGCC) plants?

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• What additional pipeline capacity infrastructure needs to be in place to handle this increased demand?

• What analysis of this need was conducted and included as part of the proposal?

• Did the EIA forecasted natural gas price used in the Integrated Planning Model calculations reflect this new 70% capacity factor usage/demand?

• Please tell us the extent to which U.S. pipeline companies added to their pipeline capacity in 2014?

• Did EPA factor the cost of pipeline construction being passed on to the consumer, in the instance were a pipeline company were to finance the cost of new pipeline construction through take or pay contracts?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways. Natural gas is a relatively clean and low-emitting form of energy, and the proposed Clean Power Plan recognizes the role it can play in lowering CO_2 emissions. While natural gas demand is anticipated to increase in response to the guidelines and other power sector rules, we believe supply is sufficient to justify the 70% capacity factor. More details about our understanding of the availability of natural gas, including the infrastructure that would be needed to supply it, are available in Chapter 3 of the Greenhouse Abatement Measures TSD, available at: http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-ghg-abatement-measures.

6. The highest annual average capacity factor of 51% for the country's natural gas combined cycle fleet occurred in 2012 coincidental with very low natural gas prices. As a result, dispatch of natural gas combined cycle units became economical. What proof can EPA provide to the Committee that demonstrates that the Agency has adequately considered fluctuations in natural gas price, supply and demand out to 2030 and beyond, especially when coupled with a 20% increase in the capacity factor, to 70%, to ensure that American working class families will be able to afford to keep the lights on? Were detailed analyses carried out by EPA to consider the practical and economic impacts associated with what will be an unprecedented dependence on natural gas? Can you please provide those studies to the Committee in advance of the comment period closing so that they can be evaluated during the comment period?

Please see the answer above to question number 5 from Senator Deb Fischer.

7. Why are C02 emissions from under construction NGCC units part of the state goal computation? What happens if those units do not become operational?

Clean Air Act Section 111(a)(2) defines a new source as "any stationary source, the construction or modification of which is commenced after the publication of regulations

(or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such sources." Any other stationary source is an existing source (CAA Section 111(a)(6)).

8. Can a state have its target emissions rates adjusted if nuclear units under construction are not completed, since their generation is part of the baseline calculation for the states where those units are located? What would be the process for adjusting the state targets?

Nuclear power is part of an all-of-the-above, diverse energy mix and provides a low-cost, emissions-free source of power. Nuclear power can help the U.S. meet its goals to reduce carbon pollution and meet clean air standards. Finalizing construction of five new nuclear units at three plants and preserving nuclear power generation at existing plants across the country are two cost-effective ways to avoid emissions from fossil fuel-fired power plants. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on under construction nuclear units, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

9. According to an analysis by the Economist magazine, renewable energy targets in Germany are popular, but their economic consequences are not. As the Economist explained, consumers "increasingly dislike" the "side-effects" of subsidizing renewable energy. "First, there is the rising cost of electricity. This is a consequence of a renewable-energy law passed in 2000 which guarantees not only 20 years of fixed high prices for solar and wind producers but also preferred access to the electricity grid. As a result, Bavarian roofs now gleam with solar panels and windmills dominate entire landscapes. Last year, the share of renewables in electricity production hit a record 23.4%."

The Economist explained further, "This subsidy is costly. The difference between the market price for electricity and the higher fixed price for renewables is passed on to consumers, whose bills have been rising for years. An average household now pays an extra €260 ($355) a year to subsidies renewables: the total cost of renewable subsidies in 2013 was €16 billion. Costs are also going up for companies, making them less competitive than rivals from America, where energy prices are falling thanks to the fracking boom."

- Do you believe that Germany's renewable energy policies have delivered zero-carbon energy without harming consumers? Do you believe that states, as they attempt to meet EPA's emissions targets under the proposal for existing power plants, can both deploy more renewable energy while doing so without raising the cost of electricity, or imposing higher costs on consumers?

In the proposal, the EPA estimated the potential renewable energy available to states as part of BSER by developing a scenario based on Renewable Portfolio Standard (RPS) requirements already established by a majority of states.

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Consistent with statute, Executive Order, and OMB guidance, the EPA conducted a Regulatory Impact Analysis that shows the benefits and costs of illustrative scenarios states may choose in complying with the proposed Clean Power Plan.

Nationally, in 2030 when the plan is fully implemented, electricity bills would be expected to be roughly 8 percent lower than they would been without the actions in state plans. That would save Americans about $8 on an average monthly residential electricity bill.

Because states have flexibility in how to meet their goals, the actions taken to meet the goals may vary from what is modeled in the illustrative scenarios. Specific details, including information about how costs and benefits are estimated are available in the RIA (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602ria-clean-power-plan.pdf).

10. Do you think the U.S. drilling boom, spurred by the technological advance of hydraulic fracturing, coupled with horizontal drilling, has been positive or negative for the U.S. economy, particularly for consumers?

As part of a strategy to reduce methane emissions, EPA recently outlined a series of steps it plans to take to address methane and smog-forming volatile organic compound (VOC) emissions from the oil and gas industry, in order to ensure continued, safe and responsible growth in U.S. oil and natural gas production. The strategy will reduce methane pollution from new sources in this rapidly growing industry, reduce ozone-forming pollutants from existing sources in areas that do not meet federal ozone health standards, and build on work that states and industry are doing to address emissions from existing sources elsewhere. Putting methane to use can support local economies with a source of clean energy that generates revenue, spurs investment and jobs, improves safety, and leads to cleaner air. At the same time, reducing methane emissions is a powerful way to take action on climate change. When fully implemented, the policies in the methane strategy will improve public health and safety while recovering otherwise wasted energy to power our communities, farms, factories, and power plants.

11. As you know NARUC is a national organization representing State Commissions statutorily responsible for regulating utilities that provide energy services. Earlier this month NARUC passed and adopted a "Resolution on Preserving State Authority over New Electric Generation". It reflects that NARUC takes seriously the Federal Power Act's reservation of authority to the States over utility generation, distribution, and resource portfolios and that NARUC supports legal and legislative actions to protect and preserve States' authority to decide the type, amount and timing of new or existing generation facilities that will be constructed or maintained within the State to achieve legitimate State policy objectives. With the adoption of this resolution do you disagree that NARUC could be interpreting your existing source proposal under Section 111 (d) of the Clean Air Act as usurping the authority reserved to the States by the Federal Power Act

to decide the type, amount and timing of new or existing generation facilities that will be constructed or maintained within the State?

The Clean Power Plan is designed to require that states regulate carbon dioxide emitted from existing fossil fuel-fired power plants. It does not represent an effort by the EPA to regulate electricity generation from those power plants. Commenters have raised legal issues similar to the ones in this question, and the EPA is currently reviewing those comments and will respond to the issues raised when we issue a final Clean Power Plan.

12. As you are at least tangentially aware, fossil resources provide the base molecules and products that we need to manufacture virtually everything we use in a modern society. In fact, coal combustion byproducts are what comprise, strengthen and make possible our roads and infrastructure. Chemicals derived from oil and natural gas production are what are refined and manufactured into virtually every product we use today, from computers to our homes, and are what make possible wind turbines (all components derived, manufactured or refined from fossil fuels) and solar panels (all components derived, manufactured or refined from fossil fuels). Accordingly, many claims about eliminating our use of fossil resources are wholly illusory. However, in order to provide a better understanding of some of your claims regarding our nation's dependence on these resources, other than counting intermittent electricity generation as a product, please provide a comprehensive list of all the things that are a product or can be manufactured out of sunlight and wind (again, please exclude electricity).

While oil and natural gas are important in a variety of uses and products, the EPA does not maintain the type of list you requested.

13. The proposal provides states the flexibility to adopt mass based limitations in lieu of rate based limitations and permits trading among affected sources. Would states be required to pass legislation allowing sources to participate in a cap-and-trade program? Given the length of time for RGGI and California to adopt and stand up their trading program, why does EPA believe that states can adopt these rules by 2018?

The proposed state goals are calculated as rate-based goals, but the proposal would give states the option (but not the obligation) to convert these to mass-based goals for compliance purposes. The proposal discussed and invited comment on EPA's understanding of the time necessary to develop state plans, and we are currently reviewing comments received on that issue.

14. Is EPA going to offer a copy of the ICF Integrated Planning Model to each state so they may perform their own re-dispatch calculations and arrive at a least cost compliance plan to be included in their SIP submission to EPA?

EPA's use of the Integrated Planning Model (IPM) is consistent with the agency's Scientific Integrity Policy. IPM has received extensive review by energy and environmental modeling experts in a variety of contexts. IPM is reproducible, transparent, and has withstood the test of time, having been used by EPA for over two decades. IPM has also been used widely by states, other federal and state agencies, environmental groups, and industry.

15. EPA has emphasized that its proposed rule offers significant flexibility to states allowing them to develop plans that align with their unique circumstances, as well as their other environmental policy, energy, and economic goals, However, EPA set very aggressive interim goals for multiple states that would require very significant resource changes by 2020. For example, EPA developed interim goals for Arizona, Mississippi, and Nevada by assuming that all coal-fired power plants would be retired and replaced with other generating resources by 2020. How will EPA work collaboratively with states to develop a more gradual and less economically disruptive approach to achieving emissions reductions?

Following publication of the proposed rule, EPA published a Notice of Data Availability [79 FR 64543, October 30, 2014] that provided additional information on certain issues that had been consistently raised by a diverse set of stakeholders, including ideas about the glide path of emission reductions from 2020-2029. EPA issued the NODA to ensure that all stakeholders and the public were aware of these issues and could consider them as they commented on the proposed Clean Power Plan.

16. EPA assumes that the heat rate of the existing coal fleet can be improved by 6%. How did EPA arrive at the 6% heat rate reduction for the existing coal fleet? Please confirm the analyses and studies relied up by the Agency in determining the achievement of and cost associated with this heat rate improvement by the existing coal fleet. Did EPA examine a recent analysis provided to the Secretary of Energy by the National Coal Council? Are these materials included in the docket associated with this rulemaking? Did EPA consider the energy penalties associated with control necessary to achieve compliance with MATs and other environmental regulations?

In the proposed Clean Power Plan, the EPA proposed four Building Blocks that make up the "best system of emission reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 emissions goals. The EPA discussed its justification for why those measures, including the heat rate improvement you mentioned which we identified as Building Block 1, qualify as part of the BSER to reduce emissions from regulated sources at length in the preamble for the proposed rule (79 Fed. Reg. 34,830, 34,878 – 34,892), the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf), and the accompanying Legal Memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, pages 33-93). The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on the issues

addressed in the Technical Support Documents and the legal memorandum, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

17. EPA stated that it evaluated different baselines for purposes of establishing the building blocks. Is this information and analysis included in the Docket associated with this rulemaking? Is it publicly available?

All information and analysis relied on for the rulemaking is publicly available in the docket.

18. Is the formula by which EPA converted the state goals to mass-based reductions and then aggregated them to arrive at a national reduction goal included in the Docket associated with this rulemaking? Is that formula publicly available?

In November 2014, as part of our efforts to respond to requests and provide information to all stakeholders, EPA issued a technical document that provided two examples of how a state, area of Indian country or territory could translate its rate-based goal to total metric tons of carbon dioxide (a mass-based equivalent).

The basic formula for translating from a rate-based (carbon intensity) goal to a mass-based (CO2 metric tonnage) equivalent is: Mass = CO2 Emissions Rate x Generation. Additional information can be found in the "Rate To Mass TSD" (http://www2.epa.gov/sites/production/files/2014-11/documents/20141106tsd-rate-to-mass.pdf).

19. Please confirm that existing hydropower may not be included in State plans? Please confirm that offsets may not be used in State plans to meet emissions rate-based goals or mass-based goals?

Neither new nor existing hydropower were factored into the state goals; however, we provided calculated state renewable energy targets with and without existing hydropower for both the proposed renewable energy method and the alternative approach. Existing hydro generation is not a compliance option in the proposed rule - but new hydropower or uprated existing hydropower, because they represent incremental new improvements, would count toward compliance.

We took comment on the treatment of hydropower in the goal setting process and in compliance with the goal. We will consider all comments - including comments related to how we considered hydroelectric power in the goal setting process and how states get credit for hydro power in their state plans - as we develop a final rule.

20. If a Renewable Energy Credit (REC) is transferred from one state to another due to the sale of either power or RECs, which state can include the emissions reductions represented by the

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REC in its State Plan? Could banked RECs be included in State compliance plans? What period could the banked RECs cover?

The proposal requested comment on the treatment of Renewable Energy Credits, including which state might consider them when demonstrating compliance. The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including the comments on RECs, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

21. When a State compliance plan is approved by EPA, making the elements of which federally enforceable, what provision of the Clean Air Act allows citizen suits to be brought against States when targets included in that compliance plan are not met?

Under a state plan approved under Clean Air Act (CAA) §111(d), all measures that a state adopts into the plan and submits to EPA for approval, and that EPA approves, become federally enforceable. Under the proposed rule, the states have significant discretion in determining what types of measures to adopt and submit to EPA for approval. The EPA will approve a state plan if it meets the state goal. EPA discussed the concept of federal enforceability, including the availability of citizen suits, in the preamble to the proposed rule (79 Fed. Reg. 34,830, 34,902-34,903) and the accompanying legal memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, PAGE 4) and the agency will review any comments we receive on this issue.

22. While new sources come under Section 111 (b) at what point do those sources become part of a compliance demonstration under Section 111 (d)?

Clean Air Act Section 111(a)(2) defines a new source as "any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such sources." Any other stationary source is an existing source (CAA Section 111(a)(6)).

23. It appears that when setting the energy efficiency targets EPA assumed each State could achieve the same percentage energy efficiency level of 1.5%. If that is correct, why did EPA choose to ignore that differences in each State's energy efficiency potential?

The basis for EPA's fourth Building Block, demand-side energy efficiency, is that over time States can achieve annual electricity savings of 1.5% annually. This Building Block is one of four that make up the "best system of emissions reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 goals. The basis for Building Block four is discussed at length in the preamble to the proposal (79 FR 34830-34950) and the GHG Abatement Measures Technical Support Document

(http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf). EPA does not propose to require the inclusion of any particular type of measures, including demand-side energy efficiency, as plans are developed for meeting the state goal. Instead, states are empowered to chart their own, customized paths to meet their goals.

24. Recently, the New York State Department of Environmental Conservation proposed a plan to mitigate damage to fish populations by regularly shuttering the Indian Point nuclear power plant form May 10 to Aug 1 0 during the highest period of electricity demand. This has set off a debate as to the cost to ratepayers as well as where the 2,000 megawatts of lost generation will come from. Did EPA account for this type of action by a State when crafting the individual state performance goals for C02 reductions included in the existing source proposal? What would a State need to do to make up for the loss of a significant source of emissions free generation in order to meet its performance goal?

The EPA's proposed state goals do not impose specific requirements on any individual source. Instead, states have the flexibility to choose their own compliance pathways.

The EPA is currently reviewing the more than 4.3 million comments received on the proposal, including comments on specific facilities, and will respond to the issues raised in those comments when we issue a final Clean Power Plan.

25. On July 6, the New York Times wrote an article describing NRDC's proposal for reducing carbon dioxide pollution from power plants as EPA's "blueprint" for your existing source proposal. In turn you wrote to EPA staff that the article crediting NRDC for the rule is "preposterous."

- How is the New York Times article incorrect?
- Have you asked for the New York Times to retract the article?
- Have you asked for the New York Times to issue a correction?

The proposed Clean Power Plan was the product of many months of hard thinking and data analysis by EPA staff and substantial input from literally thousands of thoughtful stakeholders.

Questions from:

Senator James M. Inhofe

1. In your testimony, you said that the EPA is only mandating a reduction in C02 emissions through this rule, but how will EPA enforce that if a state does not develop and submit a state plan?

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act gives EPA the authority to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could help states starting to think about developing their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

2. If EPA implements a federal plan, will it consider using all four of the "building blocks" that are described in the ESPS rule?

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act gives EPA the authority to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could help states starting to think about developing their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

3. Under existing authority, can EPA currently require a state to have gas dispatched at 70% of capacity?

a. If EPA were to include a higher level of gas dispatch in a federal plan for a state, how would it be enforced? Please provide several hypothetical examples.

Natural gas is a relatively clean and low-emitting form of energy, and the proposed Clean Power Plan recognizes the role it can play in lowering CO_2 emissions. While natural gas demand is anticipated to increase in response to the guidelines and other power sector

rules, we believe supply is sufficient to justify the 70% capacity factor. More details about our understanding of the availability of natural gas, including the infrastructure that would be needed to supply it, are available in Chapter 3 of the Greenhouse Abatement Measures TSD, available at: http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-ghg-abatement-measures.

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act gives EPA the authority to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could help states starting to think about developing their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

4. Under existing authority, can EPA currently require a state to unilaterally restrict electricity demand by 1.5%?

> a. If EPA were to include a restriction on electricity demand or a requirement for electricity efficiency improvements in a federal plan for a state, how would EPA enforce it? Please provide several hypothetical examples.

The basis for EPA's fourth Building Block, demand-side energy efficiency, is that over time States can achieve annual electricity savings of 1.5% annually. This Building Block is one of four that make up the "best system of emissions reduction ... adequately demonstrated" (BSER) that, in turn, serves as the basis for the state CO2 goals. The basis for Building Block four is discussed at length in the preamble to the proposal (79 FR 34830-34950) and the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf). EPA does not propose to require the inclusion of any particular type of measures, including demand-side energy efficiency, as plans are developed for meeting the state goal. Instead, states are empowered to chart their own, customized paths to meet their goals.

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states

flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act gives EPA the authority to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could help states starting to think about developing their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

5. Under existing authority, can EPA currently mandate the use of renewable electricity in a state?

a. If EPA were to include a mandate to use renewable electricity in a federal plan for a state, how would EPA enforce it? Please provide several hypothetical examples.

In the proposal, the EPA estimated the potential renewable energy available to states as part of BSER by developing a scenario based on Renewable Portfolio Standard (RPS) requirements already established by a majority of states. The basis for Building Block three is discussed at length in the preamble to the proposal (79 FR 34830-34950) and the GHG Abatement Measures Technical Support Document (http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-ghg-abatement-measures.pdf). EPA does not propose to require the inclusion of any particular type of measures as plans are developed for meeting the state goal. Instead, states are empowered to chart their own, customized paths to meet their goals.

Under Section 111(d) the EPA is proposing a two-part process where the EPA sets state-specific goals to lower carbon pollution from power plants, and then the states must develop plans to meet those goals. States develop plans to meet their goals, but EPA is not prescribing a specific set of measures for states to put in their plans. This gives states flexibility. States will choose what measures, actions, and requirements to include in their plans, and demonstrate how these will result in the needed reductions. The Clean Air Act gives EPA the authority to write a federal plan if a state does not put an approvable state plan in place. In response to requests from states and stakeholders since the proposed Clean Power Plan was issued, EPA announced in January 2015 that we will be starting the regulatory process to develop a rule that would set forth a proposed federal plan and could help states starting to think about developing their own plans. EPA's strong preference remains for states to submit their own plans that are tailored to their specific needs and priorities. The agency expects to issue the proposed federal plan for public review and comment in summer 2015.

EPA discussed the concept of federal enforceability, in the preamble to the proposed rule (79 Fed. Reg. 34,830, 34,902-34,903) and the accompanying legal memorandum (Docket ID

Number EPA-HQ-OAR-2013-0602-0419, PAGE 4) and the agency will review any comments we receive on this issue.

6. If the ESPS rule is finalized, will it represent an expansion of EPA's enforcement authority?

Under the proposed rule, the states have significant discretion in determining what types of measures to adopt and submit to EPA for approval. The EPA will approve a state plan if it meets the state goal. EPA discussed the concept of federal enforceability, including the availability of citizen suits, in the preamble to the proposed rule (79 Fed. Reg. 34,830, 34,902-34,903) and the accompanying legal memorandum (Docket ID Number EPA-HQ-OAR-2013-0602-0419, PAGE 4) and the agency will review any comments we receive on this issue.

7. If the ESPS rule is finalized, will EPA have the authority to do things that it did not previously have?

The proposed Clean Power Plan reflects EPA's existing authority under Section 111(d) of the Clean Air Act.

8. If EPA is not satisfied with the progress a state is making during the ten year compliance window, what will EPA be able to do to ensure compliance is met by the deadline?

Under the proposed Clean Power Plan it is the states, not EPA, who choose what measures to include in their plans as well as the stringency of those measures. EPA is committed to work with states and provide assistance and support, in the form of tools and guidance, etc. to help states develop approvable plans. The approvability of a plan is based on a demonstration that the goal will be met and not on the stringency of any individual measure.

Under the proposed Clean Power Plan, a state may choose to adopt and submit to EPA for approval a state plan that inherently requires both interim progress and the full level of required emission performance in a manner that is federally enforceable against affected electric generating units. The EPA refers to this type of state plan as self-correcting. This type of plan is not required to include periodic programmatic milestones. If the state chooses to adopt and submit to EPA for approval a state plan that is not self-correcting, then the state must include periodic programmatic milestones and specify corrective measures that will be implemented if the state's progress in achieving its level of performance falls short of what the state projected. The EPA requested comment on various aspects of the corrective measures.

9. How much will the ESPS rule reduce global temperatures?

The EPA included with its proposed Clean Power Plan a Regulatory Impact Analysis that estimated the total monetized climate-related benefits and costs of the rule, following applicable statutes, Executive Orders, and other guidance. Although the EPA has not explicitly modeled the temperature impacts of this rule, the Clean Power Plan is an important and significant contribution to emission reductions, thereby slowing the rate of global warming and associated impacts.

10. How much should projected global temperatures be reduced by to avoid catastrophic global warming?

The United States, along with other nations, has endorsed a goal of limiting temperature rise to two degrees Celsius above pre-industrial levels. The science tells us that increasing rates of warming are associated with greater risks of adverse outcomes. The two-degree goal is generally thought of as a level that has a good likelihood of avoiding several adverse outcomes.

11. How much additional regulation, in addition to the NSPS and ESPS rules, will be required from EPA to reduce future projected warming by enough to avoid catastrophic global warming?

The proposed Clean Power Plan is one part of the President's Climate Action Plan to cut carbon pollution in America, prepare the United States for the impacts of climate change, and lead international efforts to combat global climate change and prepare for its impacts.

12. EPA recently rejected a petition by the Sierra Club to require Exxon Mobil to install carbon capture and storage (CCS) technology on a chemical plant in Texas, saying that it would increase the cost of the plant by 25%. In EPA's view this was unreasonable.

Separately, EPA is mandating CCS technology at coal fired power plants, which increases their cost by 35%. EPA does not believe this is unreasonable. How do you justify this double standard, where one industry has one acceptable upcharge, but for another industry a lower upcharge is unacceptable?

The EPA has proposed to determine that CCS is technically feasible for new coal-fired power plants, because all of the major components of CCS – the capture, the transport, and the injection and storage – have been demonstrated and are currently in use at commercial scale. For example there are several industrial projects in the U.S. that are currently capturing the CO2 for use in enhanced oil recovery (EOR) or other applications. There have been numerous smaller-scale projects that have demonstrated the technology, and there are several full-scale projects – both in the U.S. and internationally – that are under

construction today. Thus, the EPA has proposed to determine that partial CCS is the Best System of Emission Reduction (BSER) for new coal-fired power plants.

13. By how much do electricity prices have to go up to prevent any nuclear power plants from retiring in the next several years?

A plant owner's decision to retire a nuclear electric generating unit is based on the unique circumstances of that individual unit. A host of factors—increasing fixed operation and maintenance costs, relatively low wholesale electricity prices, and additional capital investment associated with ensuring plant security and emergency preparedness—play a role in the decision to retire a nuclear power plant. The circumstances differ in each market for electricity and are specific to the individual plant.